

ODE TO HETEROTOPIA

furniture for daydreaming

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ABSTRACT

Ode to Heterotopia is a practice-led research composed of written part and artistic production. Artistic production, a combination of a rug and furniture, is in the main focus of this research.

While conducting my research, I used sources of inspiration such as Hvitträsk home/atelier in Finland, and takht from the gardens of Yazd, Iran, Ode to Heterotopia is crafted based on the parallel narratives between the two cultures. I place my work in between the realms of art and design. The main location for on-site research is done in the city of Yazd, where I used photo documentation, sketching and taking notes as my main method of gathering information about takht.

This thesis is divided into two parts, the first part consists of literature review on philosophical inquiries related to other-spaces, for instance philosopher and social theorist Michel Foucault's concept of heterotopia. The review of this theory provides insight into creating a space within a contemporary interior similar to the idea of Foucault, where he describes worlds within worlds. I aim to achieve this quality by mixing my cultures of origin, Iran and place of residence, Finland.

The literature review continues on by leaning on the psychological associations related to couch-rug composition, a space that is grounding and open, Inspired by the romanticism and connotations related to the tales of A Thousand and One Nights, rug becoming a vessel of conveyance.

The main focus of the thesis is the artistic portion which includes technical and practical findings and explorations which lead to the production of the final furniture, the written content and research is there to support and explain my artistic aspirations and goals. The design process and testing lead to developing a structural system for the furniture through methods used within the Iranian and Finnish craft and design context.

This thesis project's emphasis is on joining the strong traditions and theoretical procedures applied within the realm of design and architecture of the two countries. The body of the furniture is put together by combining the design approach in creation of Persian gardens with the Finnish bent plywood system used within the interior architecture. The design of the rug is also a fusion of the Finnish ryijy and Iranian gabbeh. Through several iterations, the final prototype consists of solid birch furniture and the rug is made of natural wool yarns. The motivation and goal of this project is to design a comfortable, warm place for individual or social use.

The purpose of the thesis is to explore the experiential qualities of furniture/rug duo as a space, potentially, slower pace of life. The thesis inquiry consists of research and literature review of similar settings working as a vessel for an individual therapeutic space or platform of daydreaming. The goal of the project is to introduce and redesign a type of furniture with these purposes for contemporary interiors.

Key words: autoethnography, daydream, furniture design, textile, rug, spatial design, hedonism, wellbeing, mixing cultures

Many thanks to everyone who supported me in this project

Hanna-Kaisa Korolainen
Ville Kokkonen
Martin Relander

Maarit Salolainen
Tiina Saivo

Wood studio masters

My family

Friends

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1. INTRODUCTION

This project is built up on a memory, a déjà vu i that experienced when i visited a garden in Helsinki. I meticulously regrouped my senses, the space felt familiar even though it was my first time being inside. My intention is to recreate the garden as a platform for day-dreaming by redesigning takht, a furniture intended for such non-activity. I realized a lot of the times we move in different spaces to get things done, going from point A to B with a goal in mind, well i believe a space should be dedicated to indulge ourselves, think about pleasure, day dream or absolutely do nothing.

1.1 Memory and Space

Helsinki became the city of my residence while I was enrolled in Aalto University to complete my post-graduate studies. In Helsinki, one is surrounded by forests and lakes that are an important source of leisure, social, and individual escape for residents during summer months. During the colder months of the year, the Winter Garden, “Talvipuutarha” [Winter Garden] (Fig. 2.).

The garden is divided into three sections that are home to plants and trees that are from different corners of the world.

I go there regularly to sit, draw, or just listen to the stream, and take in the air. In wintertime, once you step inside the garden the world outside disappears. Within its confined walls, the winter has no trace. The feeling inside the garden is similar to what I remember from being in my grandparents’ garden - a space that separates me from what goes on daily, a safe space where in it the routine of city life does not exist.

It is everything that outside is not; it is a type of a heterotopia, a world within another world, sort of a counter-site. It provides me with what I feel deprived of, a grounding escape. This is why I keep going back to the Winter garden in Helsinki.

Fig.2: Helsinki Winter Garden

1.2 From one extreme to another

In places with extreme weather conditions, architects and designers aspire to create spaces that are an antidote to the dominant environmental conditions. The winter garden in Helsinki is an evergreen garden sheltered from the cold seasons, similar to the Persian garden - paradise, an oasis within the dryer parts of Iran- both offering an evergreen comfortable space.

In Tehran, I grew up in an apartment building. My grandparents had an old brick house which had its walls extended around a garden of fruit trees, a swing set, and a water basin with goldfish. I waited for Sundays to go there and spend time in their garden. I remember the garden's stillness contained so much movement and a sort of rhythm. I knew what to expect from it in each season - the blossoms in the spring, fruits in summer, persimmon, and pomegranate in fall and beautiful snow and a frozen basin during winter time. Within its parameters, I felt safe and free. After I left Iran I found myself seeking a place like that garden in each city I moved to.

My grandfather was a master craftsman. He made intricate wooden Khatam work, which is all about pattern and geometry. He applied the same type of meticulousness to his garden and took pride in his arrangement of orchestrated nature. In his garden, similar to the traditional Persian gardens, he composed a rhythm for the senses. My grandparents' garden was their cultivation of the garden is a much older idea of the Persian garden. Considering the Persian garden as a system and its basic design principles as a guide, I sought to apply them to the a smaller space, in this case a piece of furniture.

1.3 Other Spaces

Several years ago, I visited Iran after many years of living abroad. I traveled to Yazd, a city in the central area of the country. As I visited some of the old heritage houses, I was drawn to a particular furniture type which is very specific to Iran and Persian gardens. In Farsi, it is called takht. It is a wooden platform covered with rugs and is commonly used in gardens or traditional restaurants, such combination reminded me of the ry-ijy rug in the house of Hvitträsk (fig.4), where the rug goes from the wall on a bench and then continues on the floor. This connection was a key point for looking more into furniture/rug compositions. The foundation of my thesis is built on objects coming from Yazd and Helsinki.

In starting my thesis work I was determined to find a space for daydreaming.

Within the Iranian architecture, my focus is on takht, a composition of furniture and rug as a space within the garden. Takht, as a space within space is a platform for self indulgence as well as a social space.



Fig.3: Lari house inner courtyard , Yazd

2. QUESTIONS AND GOALS

What is significant about takht?

I am interested in focusing on introducing this type of furniture to a contemporary space. Because of its characteristics, this type of furniture accommodates a variety of activities. It is an in-between space where one is not sitting the same way one would when using a chair, nor is it intended as a bed for overnight sleep. It is a space that is intended for a slow pace of living and pleasure. I am going to focus on the historical/cultural use of this furniture and explore multiple joinery solutions.

What is a modern equivalent of takht? How can design principles of Persian garden be applied to furniture?

Within the scope of this thesis the examples of takht that i have presented are made for larger spaces. I am interested in finding requirements for readjusting this type of furniture to fit a contemporary space.

What kind of possibilities does this furniture provide?

Since this furniture is commonly used inside of a garden I am interested in finding the design principles related to itself and its environment, I plan to look at this structure within a wider concept of the principles of design in related to the Persian garden as well as Persian gardens within the scope of a wider concept of heterotopia, It is space within space within space.

What happens when our feet are off the floor?

To be more clear about this question I am going to look into the positioning of the body on such a platform, Since takht is not really meant to be used like a chair, it is interesting to observe and experience the act of lifting the feet oft the floor and entering another space to be in.

How do sources of inspiration from different cultures mix together?

My research questions are concerned with the design methods and solutions used within the context of Helsinki, Finland and Yazd, Iran. It is evident to me that both places share a parallel design approach resulting in excess-less aesthetic, function concentrated mentality.

Ode to Heterotopia is an inquiry into crafting a space for daydreams/ing.

Fig.4: Akseli Gallen-Kallela: Liekki-ryijy at hvitträsk

Fig.5: Takht from historical hotel Shabestan , Yazd

3. DESIGN AND RESEARCH METHOD

“IDEALLY THE RESEARCH TURNS IN TO A SHAPE OR FORM NATURALLY, I FEEL LIKE IF THE RESEARCH IS DONE RIGHT IT JUST AUTOMATICALLY LEADS TO A SHAPE AND A COLOR OR FORM IT JUST HAPPENS, IT’S AN EXCITING WAY OF WORKING BECAUSE IN ADVANCE YOU DON’T KNOW WHERE YOU END UP SO IT FEELS LIKE AN ADVENTURE”

(Meindertsma, 2018)



Fig.6: Sigari house takht , Yazd

3.1 Research methods

The scope of research includes literature review and observation.

The literature review ranges from historical documents to philosophical sources which have provided this project with an insight into the type of space I aim to create, while places I visited gave me a solid example of how such spaces have been made.

In my short Visit to Yazd i was exposed to takhts that were tailored to fit the environment they were made for. During the visit I had the company of an architect and historic conservation specialist Hadi Razavi who is an active member of the conservation society who gave me more detailed explanation of sites.

My observation of inspiration sources and technical insights have been recorded in a few ways such as photographing, creating sketches and measuring, and taking notes.

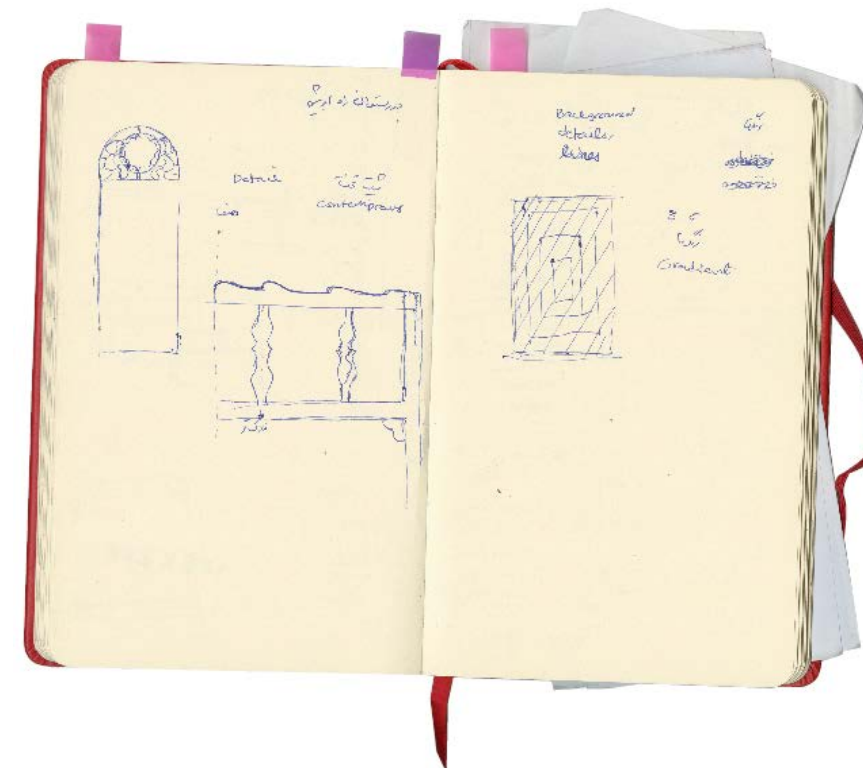
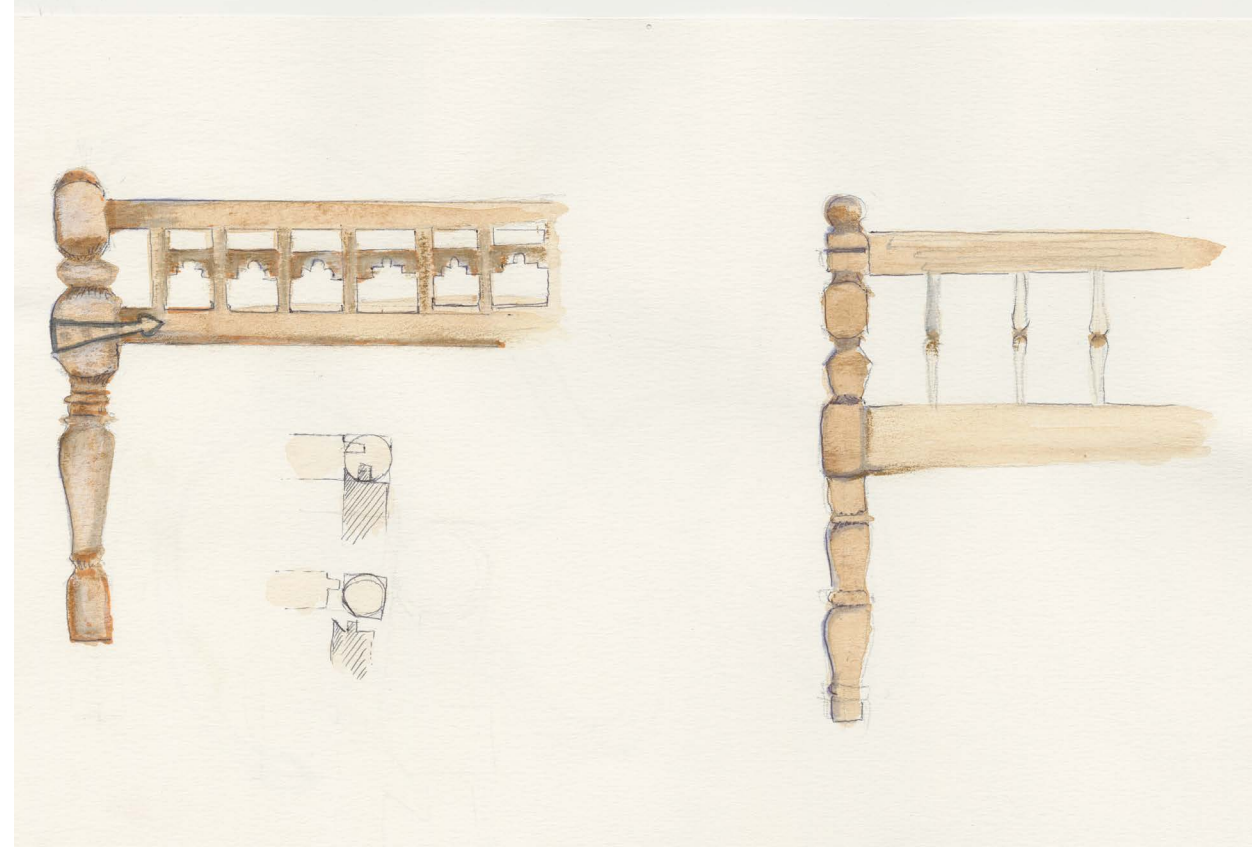
The accumulated material more specifically the photographs were used to make collages for further development of the concept and narrative of the project.



Fig.8: Objects study from Lari house , Yazd



Fig.9: Objects study from Lari house (closeup) , Yazd



3.2 How was it done?

Designer and researcher Hanna-Kaissa Korolainen in her essay *Monet and Me* explains how her practice-led research methods and forms of documentation are crucial to her final work. Hanna-Kaissa's visits to Monet's garden and the museum in the beginning of her project built the foundation for her work. She consistently documented elements that were captivating to her by photographing them or by doing onsite sketches as materials for her process. Her infatuation with Monet's garden led her to the production of a series of art works.

According to Korolainen "After selecting a new source of inspiration, an artist, or artwork, I feel an urge to discover as much information as possible. In addition to visiting museums, Monet's atelier, and garden, I sourced many art history books, searched the Internet, and plunged deep into his world. I returned to the Orangerie museum countless times. I could not become tired of those water lilies, reflections, and weeping willows. Monet's passion for the light seemed intensely present in this series. In some areas of the large, many-meter-long canvases the subjects – water, sky, and vegetation – gave the impression they had lost their shapes and melted together as an abstract composition. The entirety of the landscape remained recognizable through the skillful notion of space and distance created by a meticulous study of light." (Korolinen, 2018, P. 216)

Similar to Korolainen's artistic practice and research method, I surrounded myself with visual material I had gathered from both places, Iran and Finland. Initially I selected and paired visual material (such as just photographs, or prints) without over thinking my intentions behind those pairings, Though over time I was able to recognize the significance of my subconscious choices.

With the progression of the project the transformation of my ideas are clearly traceable. The visual material resulted in a mood-board for colors, and a design language that mix the two cultures together.

Artist and researcher Maarit Mäkelä explains the role of this practice within the essay Documentation as a practice-led research tool for reflection on experiential knowledge: 'the aim of this kind of practice-led study does not lie in one singular or objective truth. Rather, it is to open up the creative process related to the study and analyze the process of meaning-making.' (Mäkelä, Nimkulrat, 2018, P. 8)

My method of documentation is similar to these practicing artists. The tools and methods for my research

generally included photography, sketching, and making notes. During the period dedicated to first-hand insight research, even though I had concise parameters to keep findings focused, I did not hesitate to include anything that was of interest to me. In the primary stages of my research, I did not know exactly how these findings were going to affect my work, verbalizing why something has caught my attention in some stages was not possible, until I realized it was by nature something similar in both cultures, which became clear and traceable after my production work was nearly finished.

Maarit Mäkelä in her essay on *Personal exploration* writes about the interplay within the time-line of different stages of documented work and in what way it is informative to the designer: "When documenting their creative processes, they consciously reflect on their current experiences during the process (reflection-in-action) and on the documented experiences once the entire process has been completed (reflection-on-action). In this way, documentation can assist in capturing the experiential knowledge in the creative process so that what the practitioner learns from within her practice becomes explicit, accessible, and communicable (Scrivener, 2002, p. 25)." (Makela, 2016, P.2)

The process of the documentation became a map (fig. 11) for analyzing how all the different elements and subjects of the research were related together. The documentation and mapping at every stage of the process provided both the larger picture and the in-depth focus that my vision required.

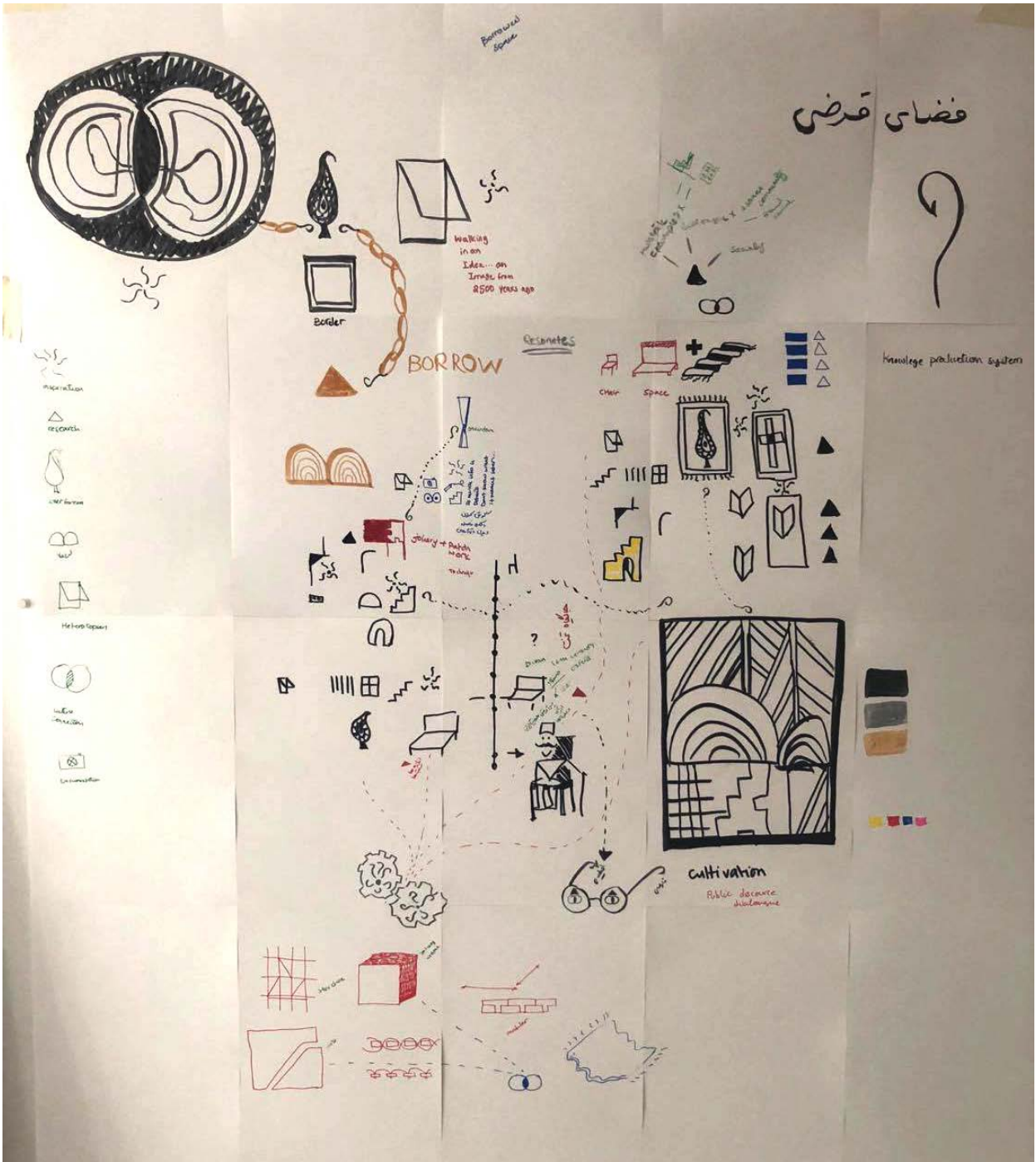


Fig.11: Mind map

3.3 Mapping out the crucial elements

In the beginning of the project I had the visual mood-board and keywords pinned to the wall. On the wall of my work space I had pictures of the garden, images of carpets that are used off the floor, close up images of joinery, and some images of landscapes. Over time the wall was filled with images. The key inspiration images became surrounded with related concepts that are supportive of the essence of the inspiration. To put this interconnected map into words I developed a system.

The documentation of the creative process is a resource for artists and designers to be able to assist the contextualization of their work. Within this method of practice, the artist or designer uses their practice as a tool for research and can trace the key subjects within the research scope.

To write about my process, I decided to go through my documented creative/ research process and assign the repetitive phenomena a symbol. I drew a symbol of my own for each repeated element or word, opened up more ideas, it was crucial to use these symbols as a reference or visual marks that capture the essence of an idea or object. The symbols I drew are quick impressions of the sources of inspirations or keywords which later on I found myself using in the design of the rugs and furniture.

I made a note on the side with a description of those references, or symbols. references for my most repetitive words within the notes or sketches that have been coming up: inspiration, research, evergreen (in many cases it was the garden that came up but the type of garden I was talking about was a gathered element that made it more than just a green patch: I made my symbol evergreen) Yazd (the city I made as my case study), heterotopia, culture overlap/connection documentation. From these keywords, other visual references branch off. By making this map, I was able to see the interconnectivity between my ideas and their combination as a new one.

Within the next portion of the thesis, I am going to review literature written by psychoanalysts and therapists in which they deliberate on Sigmund Freud's couch. Freud's couch at the time of his practice was covered by a Persian rug, He asked his patients to lay down on the rug covered couch in their therapy as he was sitting out of sight.

My curiosity lies in the events taking place on the couch and understanding Freud's intention of using such interior composition to create a space for his patients.

The associations regarding such composition of space within the psychological realm are worth investigating since the space is set up with an end of opening oneself up. Perhaps complex woven narratives within the rug represent the patients psyche, or perhaps they create a grounding feeling.



Fig.12 Streets of historical parts of Yazd

3.4 Framing the garden

Yazd is located in the middle of the Iranian plateau, between two deserts.

Its historical significance goes back to the time when merchants used the city as a stopping point to rest when traveling on the Silk and Spic road. Yazd's harsh desert climate has resulted in the creation of unique sustainable, environment-friendly Architecture. The city is built entirely of earthen material. Water is supplied through the underground Qanat system. Yazd is an exceptional example of how human settlement could exist in a harsh climate. There is an intense interaction between man and nature which has resulted in the smart management of resources. The structures of the historical site create a micro-system that sustains life. On my visit to Yazd What stood out was the timeless everlasting solutions which craftsmen, architects, or construction masters have developed to accommodate life. (UNESCO, 2017)

In this case, Yazd and Helsinki both required to have a similar type of an escape place, that is a counterpart of the dominant harsh climate; in both cases it is the importance of the garden, the ongoing evergreen man-made space. The integration of systems that allowed life to continue including the victorious battle with nature.

Yazd's historical site is an example of a design approach stripped of excess within my own culture similar to the minimalism and pragmatic approach to design practice in Finland. I came across the human-centric, function driven design approach, a perspective overlap to the design approach that exists between the two places.

As I walked through the narrow streets of Yazd's historical area with Hadi Razavi, an architect with the focus of restoration of the heritage sites, he casually pointed to some details or characteristics of buildings and explained why they were there, What seemed to be purely ornamental was also serving a crucial function. The narrow ways between the buildings, the height of the walls were measured to create shade all day long. The doorsteps had a big shaded entrance with a bench for passing people to sit, catch their breath, and cool down. Each house, in a way, was designed to accommodate peoples' well being.

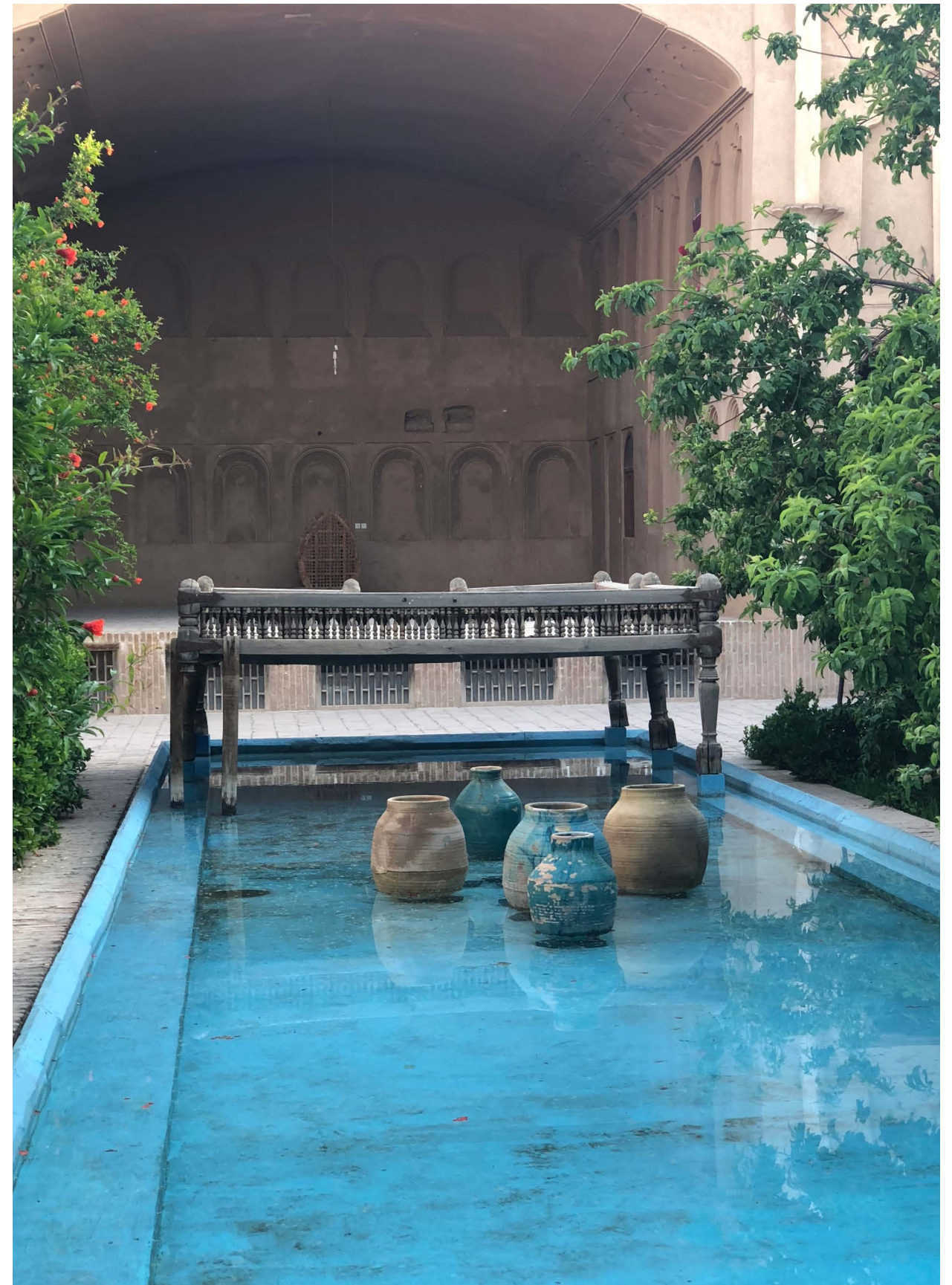


Fig.13: Lari house takht in the inner courtyard , Yazd



Fig. 14: Joinery study, Yazd



Fig. 15: Joinery study, Yazd



Fig. 16: Joinery study, Yazd



Fig. 17: Joinery study, Yazd

Here is a quote from my notes when i was staying in Yazd:

"The focus and design approach here is to make life possible, everything man-made exists to allow uninterrupted life to take form, The well-being of others directly promoting their own well-being. The simplicity and minimalism within the material and construction initially comes across as primitive yet everything is designed as a sophisticated solution to a complex problem. All the details and elements are purely designed to serve a function. The architecture and space is designed with the aim of the well being of residents of the. The values and culture is embodied in all the details of the space."

As I walked around I photographed what caught my interest, how things were joined, what solutions I saw repeating around me, how materials were combined.
Besides the technical aspect of the furniture, I was interested in what kind of events or moments this combination offers. Whether it is encouraging of a certain behavior or a state of mind.
Reading and visually studying what I had surrounded myself with revealed where my attention gets focused. This is where my inquiry becomes visible.



Fig. 18: Joinery study from Lari house takht, Yazd



Fig.19: Photo-collage for research and ideation

4. HETEROOTOPIA

Heterotopia is a recurring concept within my research, It is originally categorized as 6 types of spaces by Foucault, Persian garden and the rug with the garden design is mentioned as one. By understanding the idea behind this type heterotopia I am able to recognize the elements that contribute in creation of such space, a positive space by design. What is interesting about heterotopia to me is that it exists, It can be accessed. The term heterotopia was first introduced by Michel Foucault in his essay *Des Espace Autres* in 1967. He introduces heterotopia as a type of space or a place, he defines this concept in 6 principles. He writes:

“There are also, probably in every culture, in every civilization, real places—places that do exist and that are formed in the very foundation of society— which are something like counter-sites, a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within the culture, are simultaneously represented, contested, and inverted. Places of this kind are outside of all places, even though it may be possible to indicate their location in reality. Because these places are different from all the sites that they reflect and speak about, I shall call them, by way of contrast to utopias, Heterotopias.”
(Foucault, 1967/1984, P. 4)

The importance of heterotopia in comparison with Utopia is the accessibility of it, It is a space that exists. It's direct relationship to the state of a place, climate, culture makes it unique to each place holding it. Michel Foucault's example of heterotopia, a “*mirror*”, conditions the existence of the heterotopia only with a gaze of the beholder, a reflection space. A heterotopia in the context of a mirror could be read as a metaphor for a mental image of what is and what is not. Simultaneous existence of contradictory realities can be viewed as a collective societal experience or as an individual experience within societies.

The Persian Garden is introduced as a type of heterotopia by Foucault. The Persian Garden could be viewed not only as a counter-site, an oasis within a desert, but it's otherness creates the space for self reflection. (Foucault, 1967/1984, P. 4)

The third principle of heterotopia is describes as the existence of several contradictory places existing within one real place. A theatre with changing scenes, Cinema (two-dimensional screen reflecting the projection of three-dimensional space). One of the other examples he mentions with a long history is “*in the orient garden*”. His description of the garden can match with what is known as the Persian Garden. A Persian Garden is designed to exist within the extreme desert climate; a green oasis within an environment where nothing can grow. (Foucault, 1967/1984)

The Persian garden in Foucault's description is the representation of the world, It is a space where its symbolic geometry points to different corners of the world, representing all the directions, the garden's vegetation function as an exhibition of worldly samples. “ *With space still more sacred than the others that were like an umbilicus, the navel of the world at its center (the basin and water fountain were there); and all the vegetation of the garden was supposed to come together in this space, in this sort of microcosm. As for carpets, they were originally reproductions of gardens (the garden is a rug onto which the whole world comes to enact its symbolic perfection, and the rug is a sort of garden that can move across space). The garden is the smallest parcel of the world and then it is the totality of the world.”*
(Foucault, 1967/1984, p. 6)



Fig.20: Shahzadeh Mahan Garden, Kerman

The rug continually remains to be introduced as a moving space, not only it is a space that is portable it is a pace that moves or creates an emotion within the person who is on it.

The Persian rug's motifs and patterns are made to tell a story, they are also woven as a way of documenting and preserving the national identity, folklore stories. One of the oldest Persian rug types is the garden design, some of the garden designs are the blueprint of the garden, a heterotopia blueprint in the sense.

A rug with the blueprint of the garden within the garden is a representation of space within space, the relationship between the design of the rug and the space is an intriguing thought. The function of the Persian garden is that by entering one enters a place-less place. The act of blending different cultures creates a new place which has no relation to the actual place that it exists in. So by placing the blueprint of a garden on top of Takht within a garden, many layers of space are being created. The combination of rug with the mentioned design creates a relationship between the structure and material together, while each layer contains the other in itself. Having this concept in mind I decided to explore how this relationship manifests itself in my work.

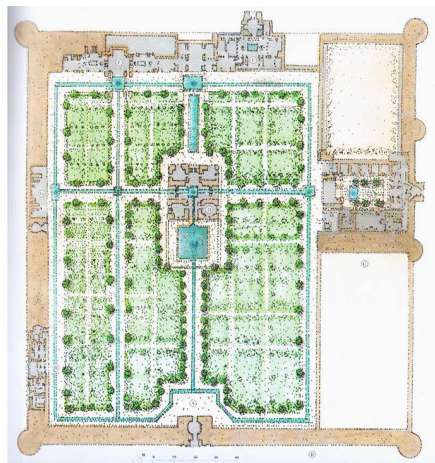


Fig.21: Garden rug from Kurdistan
Fig.22: Fin Garden layout

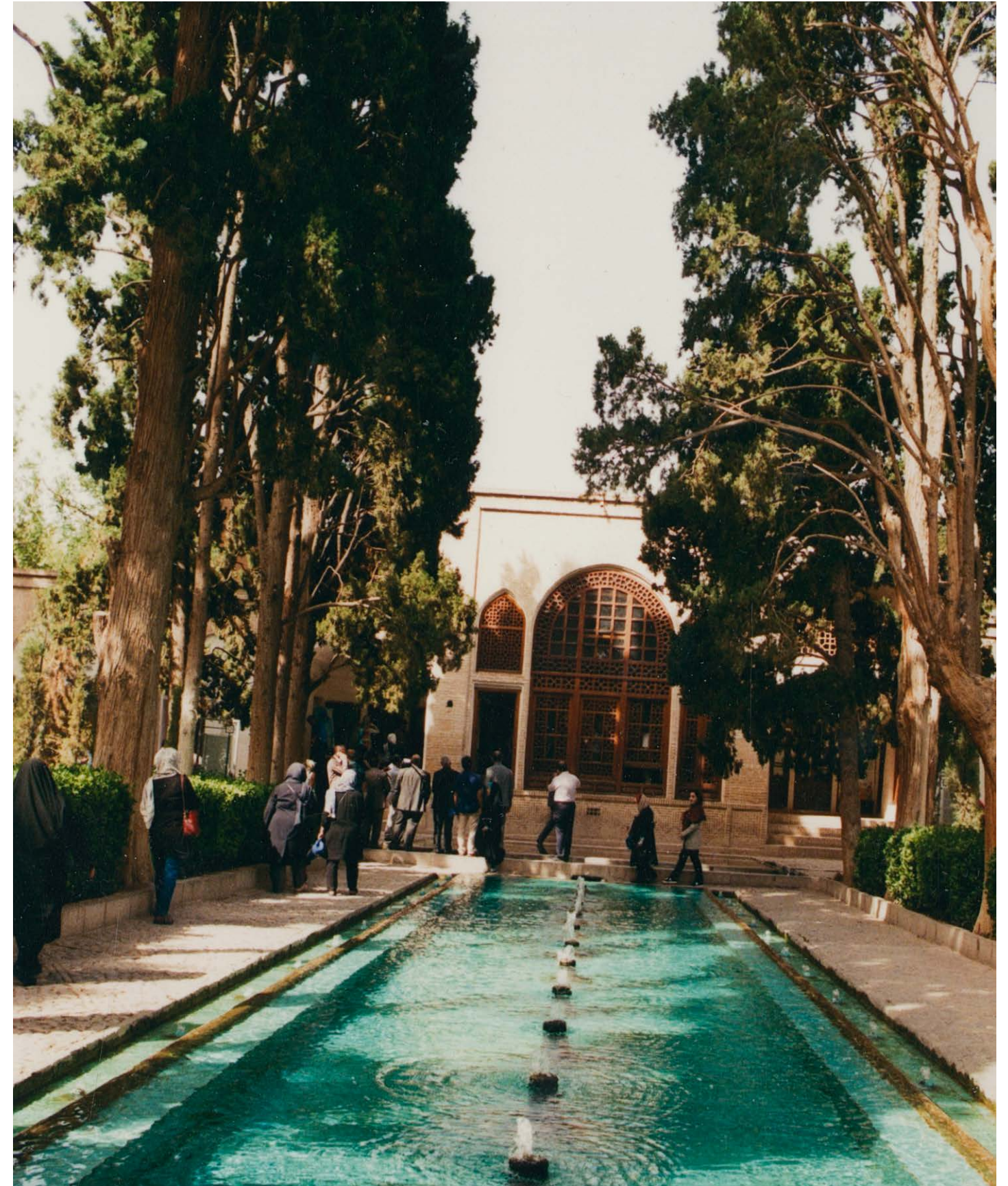


Fig.23: Fin Garden

5. THE GARDEN

To understand takht it is important to understand the environment it stands in.

A Garden is an internal widespread concept within the Iranian mind.

It is a popular subject within literature, poetry, painting, and illustration. It plays a significant role in Iranian cultural identity and has been a regenerative source of inspiration for artists, architects, and poets. The reflection, impression, or the expression of the garden has been recorded within the mythology, poetry, and literature in different eras. The oldest blueprints of the Garden were historically found in woven rugs, and also the Garden became a category of carpet pattern woven for centuries. The earliest example of the Persian Garden is found 130 kilometers from Shiraz, where the first emperor of the Achaemenid dynasty set up his empire in 553 BC. (Department of Ancient Near Eastern Art, The Metropolitan Museum of Art, 2004)

Proportion, geometry and overall lay-out are some of the main distinctive properties of the Persian Garden. Studying these principles and systematic approaches created some guidelines to how to create a similar structure as a furniture.

The original furniture Takht within the garden is designed as an individual or communal space. It is placed in the garden with a rug thrown on top, sometimes there are cushions and pillows for extra comfort. The furniture is designed in a modular way. By putting a few next to each other it is possible to create a platform area for bigger groups of people. Its placement and dimensions within the garden promote a slower pace of life. The act of taking off shoes before entering it suggests entering an intimate space.

5.1 A place to absorb the garden

In parallel to the garden, this project sets to be a space where it allows the users to rearrange their senses once entering. In order to design the furniture I decided to study the structure of the garden as the structure of my furniture and the vegetation as the Rug that is thrown on top.

It is a great interest to me to use the design drivers or elements of which makes the space of the garden to be a guide for my design. My goal within this part of the thesis is to contemplate how spatial subdividing and geometry repetition can be embodied in a piece of furniture.

Based on what I learned about the garden, I decided to choose some keywords for my self and my research.

Keywords:

Structure, water (symbolic), vegetation (symbolic), sensory experience

Geometry, symmetry, repetition, function

5.2 Persian garden is an approach

Persian Gardens are the center point of the architecture in Iran.

Shahcheraghi, a researcher and architect introduces Persian garden as cultural, historical, somatic phenomenon in Iran in her book published in 2016, *Paradigms Of Paradise: Recognition & Re-Creation Of The Persian Garden*. One of the earliest archetypes of the garden is in the historical Pasargad site, located in the outskirts of Shiraz.

If one is to understand the garden according to its most essential structural requirements and its reliance on symbolism, it is safe to say, is a square or a rectangular fenced area that is divided into smaller squares or rectangles by two perpendicular axes. A fountain in the middle of the garden, where the two axes meet, flows water to the ends of the garden. Commonly, the most important architectural structure is built at the meeting point of the axis. This kind of arrangement of elements is the basis of the Persian Garden.

The simplest description of the Persian garden from a geometrical point of view is that the overall area of the garden has a directly proportional relationship with water access, the means to sustain life in the garden. (Shahcheraghi, 2016, P. 41)

The applied geometry within the Persian garden is also a tool for abstraction and revival of the cultural belief. The survival and living conditions within the Iranian territory required the most abstraction of the sciences, math and geometry.

One of the important elements of the Persian garden is water circulation. Water is extracted from deep water currents underground and brought up to the surface of the ground, gathered in a basin, and then it flows (depending on the geographical characteristics of the site) to four directions within the garden. It creates a sense of continuity, visually and musically. Takhts within the garden are also rectangular in shape, copying the dimensions of the house or garden they are placed in. (Shahcheraghi, 2016, P. 45-48)

Persian gardens are categorized based on different factors and criteria such as “usable area”, the characteristics of the environment and climate, geography of the city, the different time periods that it has been built, but the overall paradigms repeat. (Shahcheraghi, 2016, P.48)

6. FURNITURE/RUG (AS SPACE)

HEDONISM AND SPACE

During this research I became aware of the distinct significance of the rug within space and different connotations once it is elevated. I am going to review a number of instances where carpet or furniture (or the pair) have been designed to function as distinct space.

All of the examples in this chapter contributed to different aspects of my final narrative. There are furniture designs that consist of furniture and a textile thrown on top, but did not make the cut within the scope of this chapter since they didn't encourage a behavior, or weren't acting as a flexible, individual or social space. Freud's couch even though is a space for one individual but it is accompanied by the presence of the analyst next to it, intended for an individual therapeutic process. I have included Freud's couch since it is the most iconic image of a couch and rug pairing and it's worth examining why the space is set up this way.



6.1 Couch/rug a potential space

This section of this paper focuses on the significance of using a rug as a surface covering for a couch or a bench, with the goal of creating a softness, warmth and comfort.

Rug as a vehicle of transportation is one of the key associations within the psychological context. It can be seen as a platform that separates us from our surroundings, a comfortable layer between us and the rest of the world. This vessel can create the space to free us from certain experiences and absorb us in another. Perhaps a well-known example of such a combination is Sigmund Freud's analytic couch.

In my opinion when it comes to an analyst such as Freud, it is hard to think of couch/carpet combination as a coincidence. The space he chose to make for his patients is a couch covered by rug, allowing his patient to step in and lay down within a frame of its pattern. In some sense the fixed complex pattern of the rug can be a reflection of the human psyche. Behind the couch on the wall hangs another rug, creating a sense of continuity between the walls, couch. I can imagine the rug framing the patient within the layers of patterns of the it. The arrangement of the furniture and textiles functions as a safe space, A space to perhaps lose a part of one's self and find the other. It is a space of transportation, daydreaming and free association.

In the essay *Questioning the couch*, Lingardi university professor of psycho dynamic and clinical psychology and Debei faculty of medicine and psychology refer to the couch as a “potential space” (Debei, Lingardi, 2011, p.395) where they explore the physical relation between a person and layout of the objects in contact with the patient. The function of the couch has been viewed as a space to support the user in their rehabilitation. They view the positioning of the body similar to how when we start our lives as infants laying down most of the time. The couch creates a safe space for growth similar to an infant lying down. Some analysts such as Ogden refer to such symbolic arrangement as a private space, Winnicott and Balint see it as a dependent space “using the metaphor of the mother-child relationship”(Debei, Lingardi, 2011, p.395) “the state that characterizes the receptivity of a nursing mother and the receptive state of her infant during the nursing” (Debei, Lingardi, 2011, p.398). In this way, the analyst receives the patient's dream-like associations in a dreamlike state and then processes them cognitively.”(Debei, Lingardi, 2011, p.396)

While the tradition of covering furniture with rugs is not very common within the western setting, it is worthwhile to explore Freud's ideas behind creating such space for his practice.

Marina Warner, writer and mythographer, has written in 2011, a deliberated review on Freud's couch in her essay *Freud's Couch: A Case History* about the connotations of such combination: carpet covered couch. She visualizes the parallel events in the story book of the thousand and one nights with the patient's experience on the couch. Within the framed stories of the book Shahrzad and Dunyazad find relief from death night after night by telling stories. This might be a clue to the importance of the space we create to connect to others verbally about our narratives, in this case similar to Freud's couch. Within the collection of stories of thousands and one nights there is a common theme, Many stories unfold at night time in different beds. In some translations of the books, where the adventures unfold such as “Aladdin of the beautiful moles”, the bed is translated as a flying sofa or divan. Those tales are unfolding in the nighttime, whereas the flying sofas in a tale like “Aladdin of the Beautiful Moles” are strictly daybeds and, as furnishings, suggest a specific form of consciousness: the state of reverie that arises when someone is still awake or semi-awake, and in a receptive state of consciousness.



Fig.25: Psychoanalytic couch at Freud Museum London

The original word Suffa was from the Arabic language and divan from Farsi.

Such interior setting, lined with rug covered divans is a common depiction produced by foreign and local artists. Such composition of domestic scene becoming an embodiment of what Warner mentions as “oriental hedonism”. Warner writes: “for example, the oriental sofa becomes a nesting place for dreams and pleasure, a daybed, a low lying couch for reclining and abandoning oneself, alone or with others—to lovemaking, auto-eroticism, smoking, daydreaming, storytelling, reading and studying, quietness and reflection. Such sybaritic mores excited Western admiration, and the furnishings were much copied.”

Such beds stimulate daydream rather than dream, and tap into subconsciousness rather than unconsciousness. In such states of reverie, the mind opens to “l’invitation au voyage,” to travel toward “luxe, calme et volupté.” (Warner, 2011, p.146-8)

As I look at images of Freud’s couch, it is noticeable that the couch itself is not visible, the rug appears to be lifted, defying gravity. The flying carpet being a vessel for transportation, a place where the fabric of our fantasies are revealed. Every tiny knot within the construction of the rug completes the bigger image. It is a platform for individual reflection, while it could be a communal space.

It is not far-fetched to think about Freud’s symbolic association of the carpet coming from the magic carpet of the famous stories of the thousand and one nights, As he wrote in a letter to his future wife Martha Bernays in 1882, describing his wish to be united with her using a magic carpet as means of transportation. (Warner, 2011, p.155)

6.2 furniture and closeness to nature

Takht is a common furniture type consisting of a platform with a rug, it is common within the Iranian interior and garden setting and is used for individual or social settings for rest, sharing food and tea.

Water within drier climates is very precious. It is considered as a symbol of wealth and prosperity. In the image above the furniture is held on a shallow water basin, the legs are held dry on the surface of the water cutting the access of insects to the furniture.

a stationary vessel floating with distance from the surface of water, the life essence of the garden.

In the dryer climate areas such as the city of Yazd within the summer months it is only possible to be outside in the late evenings. It is common for families to spend their evening on Takht, for social or individual time.

The old houses with their inner-courtyard gardens used to have their takht tailored to fit the dimensions of their garden. This type of takht is designed to emerge the users with all the natural elements within the garden, it creates a sense of separation from the rest of the building since it is standing on a fluid element of the garden.



Fig.26: Traditional restaurant in Darband, Tehran

While such examples are within a domestic setting my personal experiences taking place on takht is within a public space. My memories of takht are related to dining out with family and friends.

The traditional restaurants that serve food on takhts commonly place them outside where the natural landscape is pleasant. As a child I personally didn’t like dining on takht since I had to take off my shoes since it meant that I had to stay in one place, that is where the takht’s rug became my source of amusement, I did enjoy looking at its motifs. Spending time on the rug is similar to being inside a story book. Nowadays I value and crave platforms and spaces which are intended for a slower pace of life.

6.3 A social pit

A conversation pit can be seen as a reversed version of the takht. Within the western domestic interior it is intended for being a social pursuit of hedonism.

A conversation pit is a sunken part of the living-room within the residential interior. A prominent example of such composition within the Miller house by Finnish-American Architect Eero Saarinen in collaboration with Alexander Girard who added a new dimension to the interior. The sunken squared space is lined with cushions and upholstery created potential space for a dialogue, bohemian gatherings or hedonistic space for pleasure. (Chayka, 2017)

The lay-out of the pit encourages a type of social interaction that is laid back and intimate. By changing the elevation of the space, one is immediately aware that they are entering a separate space. The space offers built-in seating. The conversation pit is a space within a space where one's immediate attention becomes more focused within the realm of the pit, where individuals would be facing each other, creating a small bubble within space to encourage a casual social interaction. This example is similar to the space I found in Yazd, made for the rooftop. What the conversation pit, the rooftop space in Yazd and takht all have in common is that they are all square, with extended seating areas. The platforms all have loose upholstery for customization and rearrangement. The rugs and cushions and textiles can be changed creating a sense of fluidity and transitory.

The mentioned examples require a large space to be implemented in, reviewing them gave me an idea of what specifications about them I like to include in my project.



FURNITURE

7.1 Takht introduction

In the context of furniture the word takht can be used to describe both a bed and a daybed. While the word takht in Farsi language carries multiple meanings based on its context it can be used as an adjective or a noun but in either form it always conveys stillness ..

Within the scope of this thesis I am focusing on the definition of takht as a daybed. During the course of my research it became evident that this type of furniture has not been studied within Iranian interiors. Research related to Iranian furniture and its history is limited and mainly focuses on ancient furniture used by emperors.

While searching for clues about the time line and use of this furniture I found artifacts, coins, plates and illustrations which lead me to a similar type of furniture, the Divan.

The Oxford Dictionary traces back the roots of the word divan to old Persia, Divan as noun is defined as bed, daybed, or more specifically as a bed consisting of a base and mattress but no foot-board or headboard.

Historically it is translated as a legislative body, council chamber, or court of justice in the Ottoman Empire or elsewhere in the Middle East. The Oxford Dictionary traces the origins of the word to the Persian language.

Within the late 16th century the word divan was imported to the French language and Italian from the Turkish word divan which came from the Persian language meaning court, or bench. By the 18th Century the word Divan began to refer to a type of furniture which resembles takht as a low platform or more commonly looked like a bench which was integrated within the interior architecture. The description of divan is almost identical to the takht, though takht usually has a low backrest whereas divan does not. ("Divan," N.D..)

I believe that divan transformed to a structure similar to takht by 16th century.

7.2 History of takht

One of the earliest instances of divan/takht illustrations I found is a carving on a metal silver plate. This particular plate is from the Sassanid era of the 6-7th century. The silver plate currently is part of the collection of Walters museum of art in Baltimore, United stated. On the plate there is an image of a Sassanid emperor and empress seated in celebration on a structure similar to a divan. The low platform is covered with textiles and pillows. (Ramezanmahi, 2012)

When i looked through many miniature paintings i found takht in slightly different shapes and sizes produced after the Mongol invasion of the empire during the 13th century. Najafi researcher and art critique describes the Persian miniature to be a medium for artists to envision a type of a heterotopia.

Najafi writes in his article that in the ruins of the city having the space to continue living in the previous fashion was no longer possible. The Iranian miniature imagery was a response to living through the invasion and life manifests within its poetry.



Fig.29: Lari house takht, Yazd



Fig.30: A rooftop takht part of a cafe, Yazd



Fig.31: Silk road restaurant takht layout, Yazd

Najafi draws attention to the frequency of the term “Other place” within the poetry. Since there is no subtext recorded to explain the poet’s description and the term “other place” it is possible to link it to Foucault’s heterotopia idea. (Najafi, 2019)

Based on my observation and studying of the Persian miniatures, The furniture within the Miniature illustrations are used to show the social/political ranking of the figures depicted. The more elaborate the piece of furniture the more important the person is within the context. The backrest of this style of furniture creates a more comfortable space for sitting while also keeping the user out of reach, more protected, and separated from the rest of the space. The structure creates a space within the space. My research based looking at artifacts and miniature illustrations from the museum’s Online archives concludes that it is possible that the takht became most popular during the Safavid dynasty. Reclaiming cultural identity after the Mongolian invasion was a defining theme of this era . It was a time in Iran when arts and crafts and culture greatly flourished.

During the Safavid era from 1501 to 1736 explorers, merchants, and travelers visited the country and took inspiration and recorded their findings. A perfect example of this is the Divan making its way into European interiors. (Encyclopedia Britannica, 2020) Unfortunately, despite Iran’s long history of producing furniture, few historical examples of the takht have been preserved.



Fig.32: Sassanid silver plate



Fig.33: Habib al-siyar (Beloved of virtues)



7.3 Similar to takht

Fang Hai in his 2004 research on the *chinesism in modern furniture design* has done extensive research on seating arrangement and development and its influence on the west.

Within the history of arts and crafts, there has always been a strong exchange and influence between the two cultures. (Fang, 2004, P. 5) Iran, similar to Japan, has a long history of ground-living customs. Fang Hai compares the similar traces between Japanese cultural roots in China within the Middle Chinese period-The Tang dynasty(7-8 Centuries). In the Images found on the coins and carvings in Iran similar to those of China the history of furniture is a long practice related to material, social conditions, religion, and cultural exchange. Fang writes:“ In Ancient China most people sat and slept on mats, although wealthy and important people also had low platforms or beds. The mat level mode of living influenced the houses that people lived in at the time; furniture was neither abundant nor highly specialized, it could be moved easily to serve several functions, as present-day Japan. It determines all the proportions of the house. Height and authority, or special spiritual or ritual activities are often correlated. It is very important that high seat entered china with the spread of Buddhism during the late Han Dynasty.”(Fang, 2004, P. 15)

His research introduces traces of the Early Chinese Frame chair which has many similarities to the takht. This type of chair was developed within the Buddhist context, and was still not an everyday item. He called this type of chair an honorific seating. The structure and frame of this chair is similar to that of the takht based on how they are used. (Fang, 2004)

Both are raised platforms that do not require the user to hang their legs. These chairs have geometrical box-like structures similar to the miniature illustrations of the Iranians. The difference lies in the takht's raised back which is adorned with a hanging textile. It seems the same type of process and development has been undertaken by Iranians over time.

7.4 Takht of the Lari House

I visited Yazd just before starting this project in 2019, I visited Yazd two times, on my first trip I got the ideas about doing this project and in my second visit I went there with a set of criteria for the visit. Both of the times I only stayed for a week or so. Both visits were arranged to take place during the most comfortable season, before it is too hot. First visit was during winter and the second one took place during spring. On my second visit in spring through an acquaintance I was introduced to Mr Razavi. Razavi is a passionate local architect who was in charge of restoring heritage buildings in Yazd. As we walked around the historical part of Yazd he casually pointed in different directions and talked about them with me. For the most part i was listening and getting to know the thought process behind the architecture and its direct relationship to the natural environment and also social cultural customs specific to Yazd. At the time I was carrying with me a camera, pen and paper, and measuring tape.

After a general unofficial tour with Razavi I decided to revisit some of the sites by myself and spend more time in those spaces. I took notes about what stood out to me about how things were made based on my own observation, i made sketches of some artifacts, and also took pictures so i could have them, at the time i was not sure how these images would inform my process.

My on-site research on takht was focusing on two different sites. The first site was the historical Lari Residence. The Lari House (fig. 29) was built for an aristocratic merchant family during the Qajar era in 1789-1925. (Maleki, Ahmadi, Vedat, 2014)

It is a protected and registered national Iranian heritage site. The Lari House's takht dates back to the Qajar era as well. Such traditional architecture of buildings of the desert are mainly designed to be accommodating and comfortable despite the changes of season. The buildings layouts are introverted due to climate,cultural beliefs, and lifestyle.

The courtyard is the central point of a building. This type of architecture emphasizes the significance of introspection and mystery, such approach is an interpretation and embodiment of the mysticism within the Iranian culture and architecture. The courtyard is where all the sections of a house open to, connecting all the space. (Maleki, Ahmadi, Vedat, 2014)

It is widely known that residents move from one part of the building to another based on the season. During the summer the northern section of the house is favorable, and in winter the southern section is preferred because it keeps residents warm.

From my notes written in spring of 2019:

“Upon walking in the courtyard I see the takht sitting on a basin. This shallow basin and courtyard area are in the heart of the home. The takht is a meeting spot within the garden.

Joinery and connections used for such platforms are unique. This takht is not in great shape nor has it been restored. The details of the railing and short backrest are similar to the intricate designs of the Persian miniatures. Razavi explained that the small details were made with the off-cuts of the large planks of wood which were used to form the structure. The material is considered to be very precious and nothing is wasted. He also emphasized the fact that the second joinery elements and metal pieces were added later as a method of restoration and mending.”

The second site is a restaurant in the historical part of Yazd again. The takhts in this restaurant are a common type (fig. 31), a contemporary version of the takht which is typically found in public spaces. This type of takht is common in the interiors of private or public spaces. This form of the takht is often set up in seasonal restaurants outside, or permanently within an interior. It provides a space to dine and relax, in small or large groups. Similar to Lari house I had my tools to record the overall dimensions and joinery details. Contemporary takht dimensions are different than the ones tailored for residential homes. Based on the measurements i recorded The low backrest of a takht is measured between 240-330 millimeters which creates a sense of comfort, safety and privacy. The supporting backrest is usually combined with a cushion.

Takht measurements fit a small group sitting with legs crossed or stretched.

Individuals are intended to sit in a semi-circle on a takht, facing each other while drinking a cup of tea or enjoying a meal.

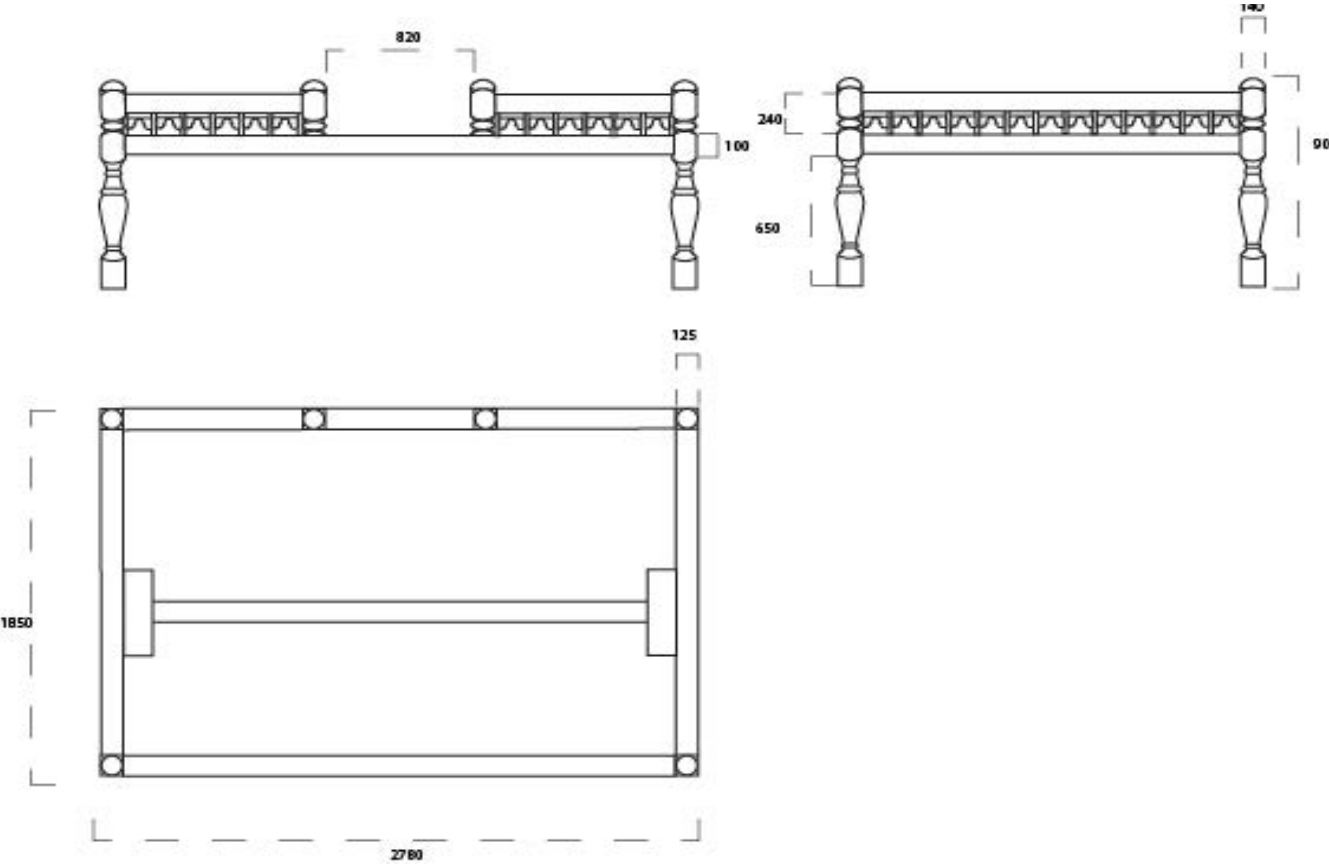


Fig.35: Dimensions of Lari house takht

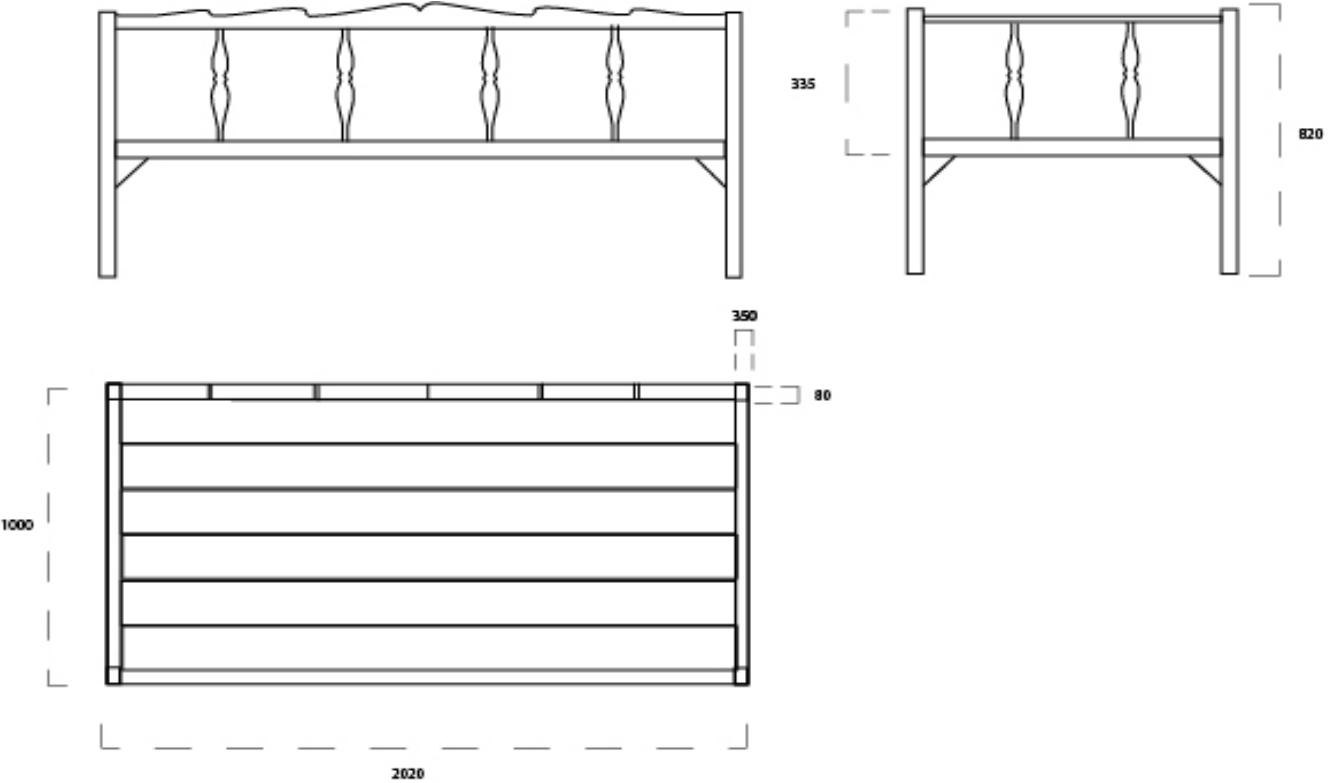


Fig.36: Dimensions of contemporary restaurant takht

8. INTERIOR TEXTILE: THE RUG

In this part of the thesis, I would like to focus on the textile element of takht. I reviewed different aspects of the rug and furniture combination as a pair.

The purpose of discussing this combination was to explore the unique qualities of such a pair. In this section I will focus on the intersection of Finnish and Iranian rugs, specifically Finnish ryijy rug and Iranian gabbeh. I will examine the similarities within the context of interior, culture, and as a form of craft and creativity. The detailed technical production or properties of these woven rugs or ryijys are beyond the scope of this project.

It is widely known that woven rugs, or heavier woven materials have traditionally been used as a means for temporary shelter, architectural setups, storage containers or as a trade asset. Rugs, in particular, are passed on from generation to generation as family heirlooms. A rug's patterns, motifs and colors are a reflection of the maker's origins, identity and the region it was produced in.

I see rugs within the contemporary interior as a connecting element between the different spaces or objects. A rug both frames a room and separates a space in sections. Their placement, color, and patterns affect how we feel or move in a room or space. I would like to focus on a specific rug that inspired this project, the iconic ryijy rug situated in Hvitträsk.

8.1 Hvitträsk

Upon my visit to Hvitträsk, this atelier became influential in this project.

Hvitträsk is a unique Villa- work atelier designed by the most iconic Finnish architect trio, Saarinen, Gsellius, and Lindgren. The building is now a museum open to the public and remains an iconic work of art. The three architects collaborated on its highly detailed interior and exterior spaces. It is noted to have profoundly influenced the direction of aesthetics in the 1890's. The influence of William Morris's ideas about the romanticism of material and quality of craftsmanship at the time is visible. The interior of the building is a masterpiece which is a result of collaborative work. The furniture and textiles were designed by noted practicing artists and craftsmen. It was a quest for developing a Finnish national identity with a great deal of openness to international influences. One of the main examples of the international influences is the composition of the Akseli Gallen-Kallela's ryijy rug called flame draped over a bench. The placement of the ryijys has changed over time. The Flame ryijy rug at the atelier is a different color variation than the ryijy rugs Alexi Gallen-Kallela previously presented in the Paris art fair.

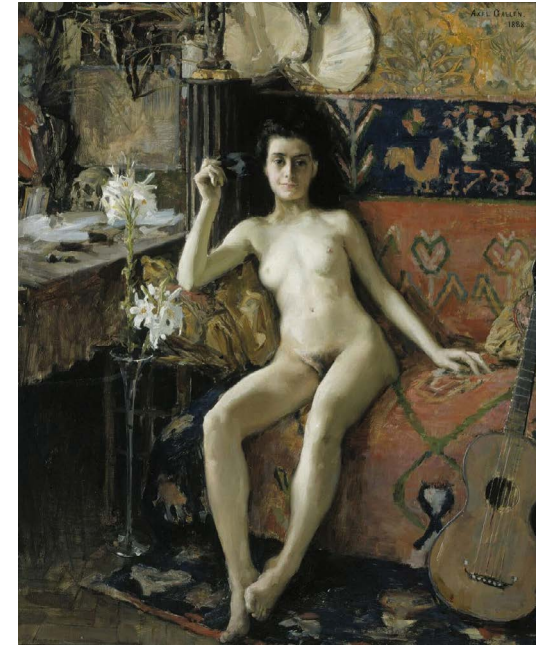


Fig.37: *Démasquée* by Gallen kallela



Fig.38: Hvitträsk interior

Akseli Gallen-kallela is a very important Finnish artist famous for his beautiful painting of the Finnish epic Kalevala. He also gained international recognition during the 1900 Paris world fair for introducing Finnish craft and design alongside other iconic Finnish colleagues.

(Suomen Rakennustaiteen Museo, 1987, PP .31-33)

One of Gallen-kallela's paintings called *Démasquée* (fig.39) painted in Paris in 1888 was done a little before Hvitträsk was built. I can't help but wonder about a chain of influences that resulted in the composition of Hvitträsk's ryijy rug composition. Another example of a couch rug combination and culture mixing at this home/ atelier is the carpet placed on top of its built-in furniture

This is a direct example of how the architects and designers of Hvittrask were open to international influence. The Satu rug meaning fairytale, designed by Eliel Saarinen flows to the floor of the dining room. The Saarinen rug has similar design elements to Garden rug patterns traditional in Iran. These two examples within the Hvitträsk demonstrate important links between the two cultures and successful application of mixing cultures.

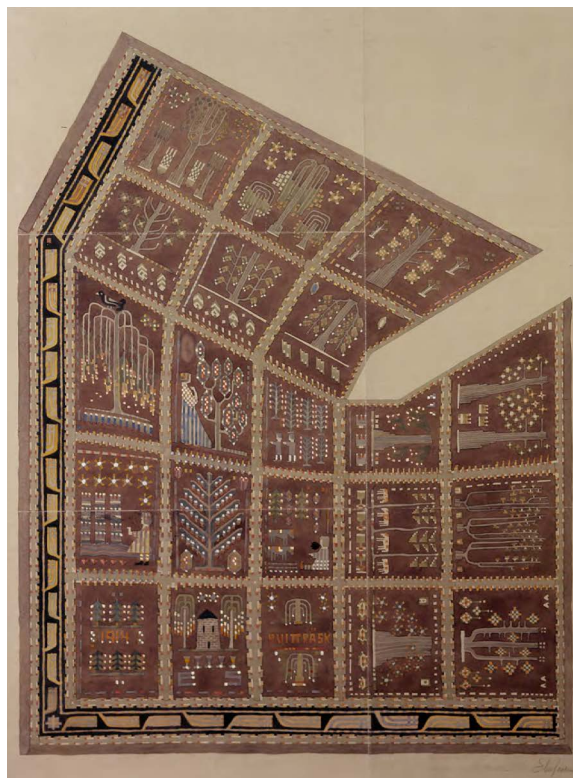


Fig.39: Eliel Saarinen ryijy rug design done in water color



Fig.40: Antique Kerman garden design



Fig.41: Hvitträsk interior with a tailored woven rug, the pattern of the rug is by Eliel Saarinen



Fig.42: The house of love by Hanna-Kaisa Korolainen

8.2 Contemporary ryijy design

Hanna-kaissa Korolainen is a Finnish textile designer and visual artist. Her hand tufted rugs are a great example of how textiles and rugs can create an accessible space within a space. While Monet's paintings are a fixed frame on a wall like a window opening to a moment within time, Korolainen's rugs are within reach and close. Her ryijy rug composition on a bench is inspired by Hviträsk's iconic bench-ryijy. The long pile, hand combed ryijy creates a sense of depth as if one is surrounded by growing elements. The placement of the rug reaching from the wall onto a bench and then onto the floor creates an accessible environment, as if one is invited to step into her iteration of the garden.



Fig.43: Broken flowers rug, by Hanna-Kaisa Korolainen

8.3 Finnish Ryijy - Iranian gabbeh

Finnish ryijy rug has had a long history of handicraft dating back to documents found in the mid 15th century. It has been used as a means of trade and payment, as a family heirloom, and a symbol of families joining in marriage. As an interior textile it was commonly used as a bedspread but as Finnish interiors have changed and evolved Ryijys have become decorative pieces. Ryijys remain to be a canvas for Finnish artists to develop a sense of identity and aesthetic and in some cases it continues to transform to match the interiors of Finnish homes. (Louhio, 1970, PP.29-32)

I find the Finnish ryijy rug is comparable with the gabbeh, an Iranian woven long pile rug. Both rugs are similar in their structural properties and in terms of being quite abstract and simple. Both are woven free form relying on the weaver's imagination. gabbeh, similar to the Ryijy in texture, has longer piles of yarns, creating a soft pleasant sensation. gabbeh much like the Ryijy has dense weft warp and long piles. It was originally woven and made by Nomadic families and tribes. Unlike other types of Persian carpets and rugs, the gabbeh doesn't have a specific pattern so the design is up to the weaver's imagination. (Other Persian carpets and rugs can be categorized and recognized based on their regional patterns and compositional elements). (Alemi, Yarmohamadi, N.D..)

Iranian gabbeh weavers paint impressionist designs of their nomadic life and surroundings within the frame of their rugs, recording their family stories and environment. Their nomadic lifestyle and their dependence on nature is an important subject within their creations. Local landscapes, family, and livestock are commonly depicted in gabbeh rugs. My career and education have made my life somewhat nomadic so I wanted to record and mix the elements of the two destinations that are a central theme of the project together; Yazd and Helsinki. The existence of these two different extreme environments next to each other is a heterotopic experience.



8.4 Landscape of the mind

On my visit to Yazd, I learned that surface ornamentation communicates which spaces are private and which are not. This system was created since many of the families used to have a home office within a part of their houses. It was common to leave the main doors open during the day for conducting business. The doors that lead to private family rooms are marked differently from the ones that lead to traditional workspaces. Yazd is saturated with warm earthy colors, with soft lines and domes that stand out. When walking on the streets of the old town the camel-colored earthy walls and the blue sky are the main two colors that you can see. I realized the calming effect of the combination as well as how nicely they complement each other. For instance from Helsinki, the lay-out composition of buildings is what stood out, the rows of apartment buildings, and their straight sharp lines stuck is really sticking, in some neighborhoods there is a unity and repetition that occurs, making the details stand out.

With these details in mind, my initial sketches were intended to play with the idea of geometry and color as a medium for individuals to decide how to move on the rug area. Since the rug is the main upholstery material for the furniture, it became the main canvas to mix my observational inspirations for the two cultures. During the drawing phase I would keep the keywords I had collected from the two environments as well as the photographs next to me. I look at rugs as a grounding layer for us. When a rug is elevated from the floor onto a couch or on a wall it can be perceived as a spatial frame. This elevated frame now becomes a three-dimensional space. Considering the rug as space rather than a flat surface area requires the design and colors to follow the movement of the surface. The patterns and lines I had in mind initially would have been inspired by how a rug is used and to explore how users read the textile. As I continued to sketch more patterns this concept stayed with me even though I was ready to move on from this approach. The sketches continued based on what was appealing to me in photo documentation and I played with space and lines, both negative and positive and curved and straight. Later I created scale drawings of the rug and divided the spaces following the dimensions of the furniture. After I finish a drawing I would cut out the drawing and fold it, similar to how it would sit on the furniture. Most of the sketches for the rugs are done only with a black marker. The thick black lines allowed for creating clear sections and patches. When mixing places, elements many layers of meaning is made, the layers are visible depending on the viewer's position towards the furniture. The final drawings were conclusive based on how the rug is placed and perceived on the furniture. A lot of color choices were made on the spot when I was using the tufting machine to fill in the outlines and shapes I had drawn.



Fig.46: Space division on the rug sketch

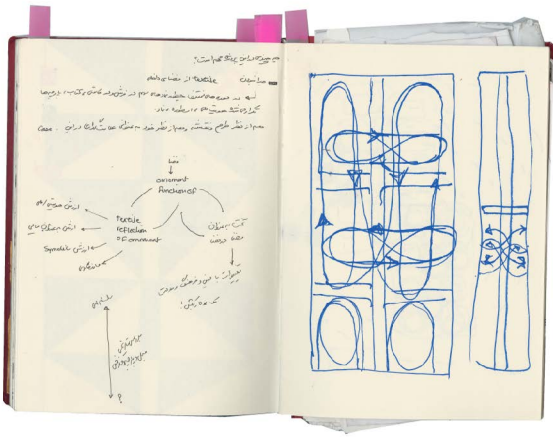


Fig.47: Sketch of potentially movement on the rug



Fig.48: Color combination for the rug



Fig.49: Wool yarn samples

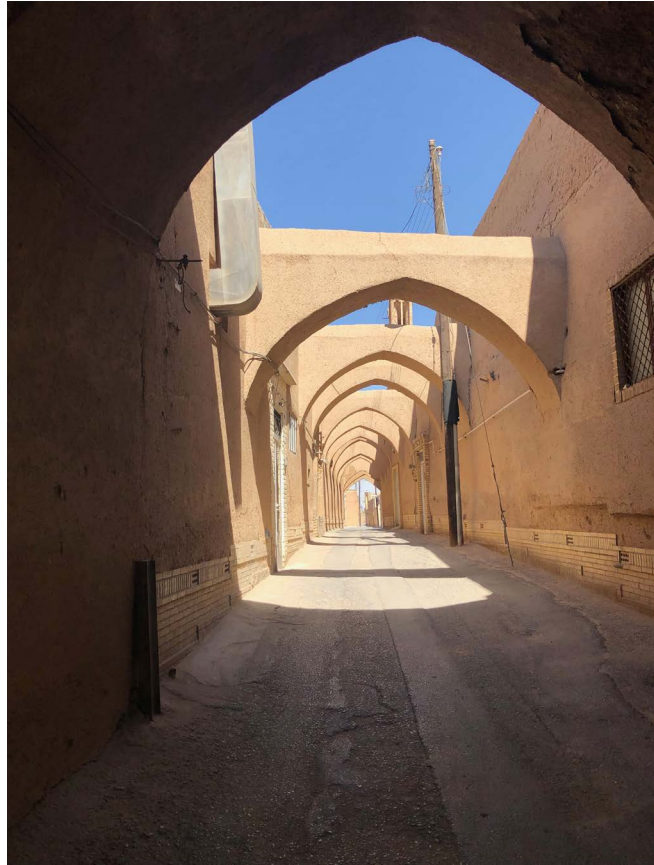


Fig.50: Streets of Yazd as inspiration



Fig.51: Tests done by tufting



Fig.54: Fisrt rug test

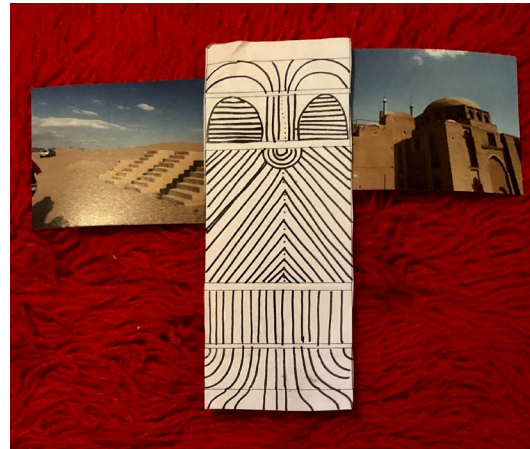
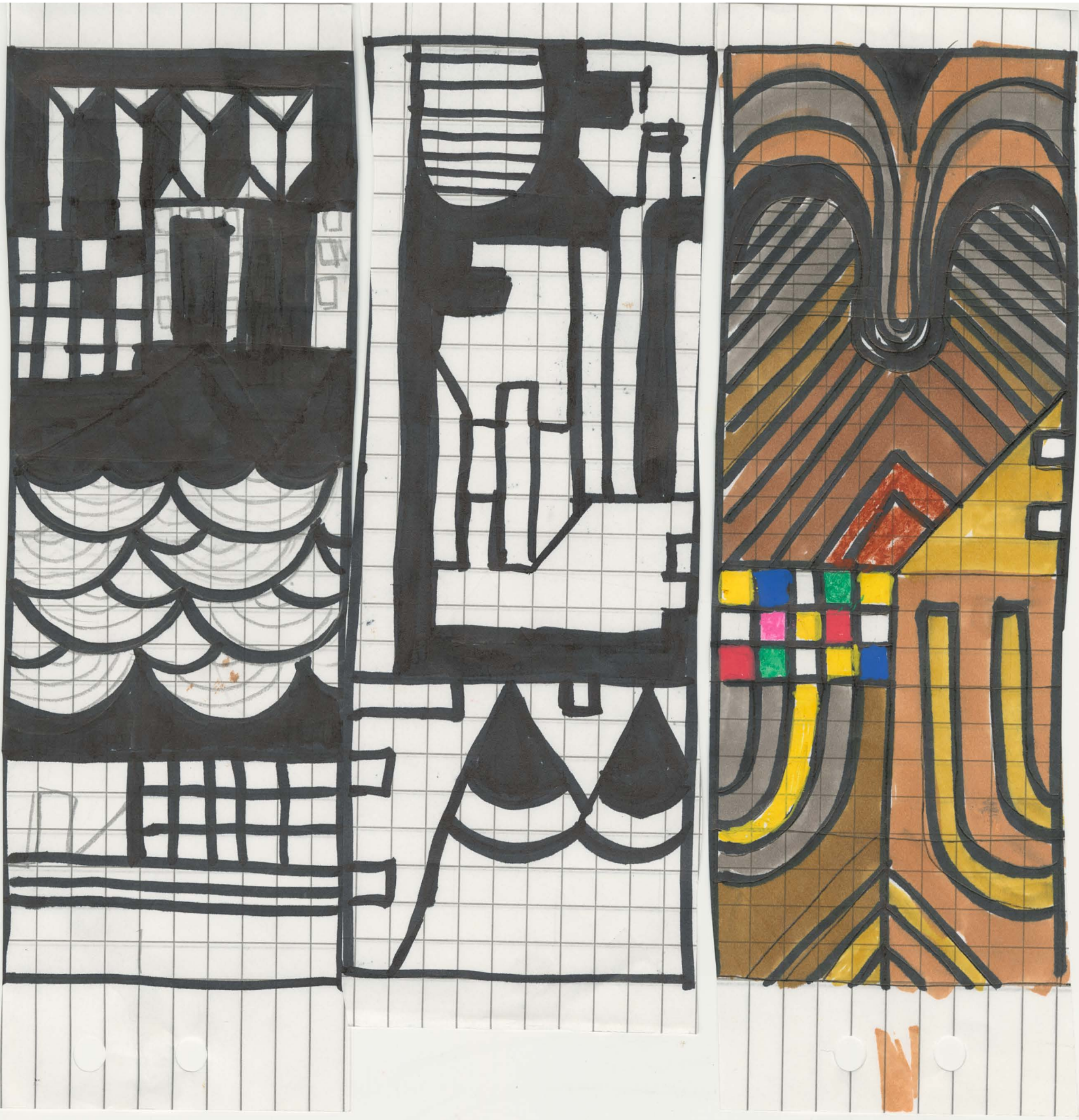


Fig.52-3: How the sketches came about



Fig.53



62 Fig.55-8: Sketches for the final rugs

Fig.56

Fig.57

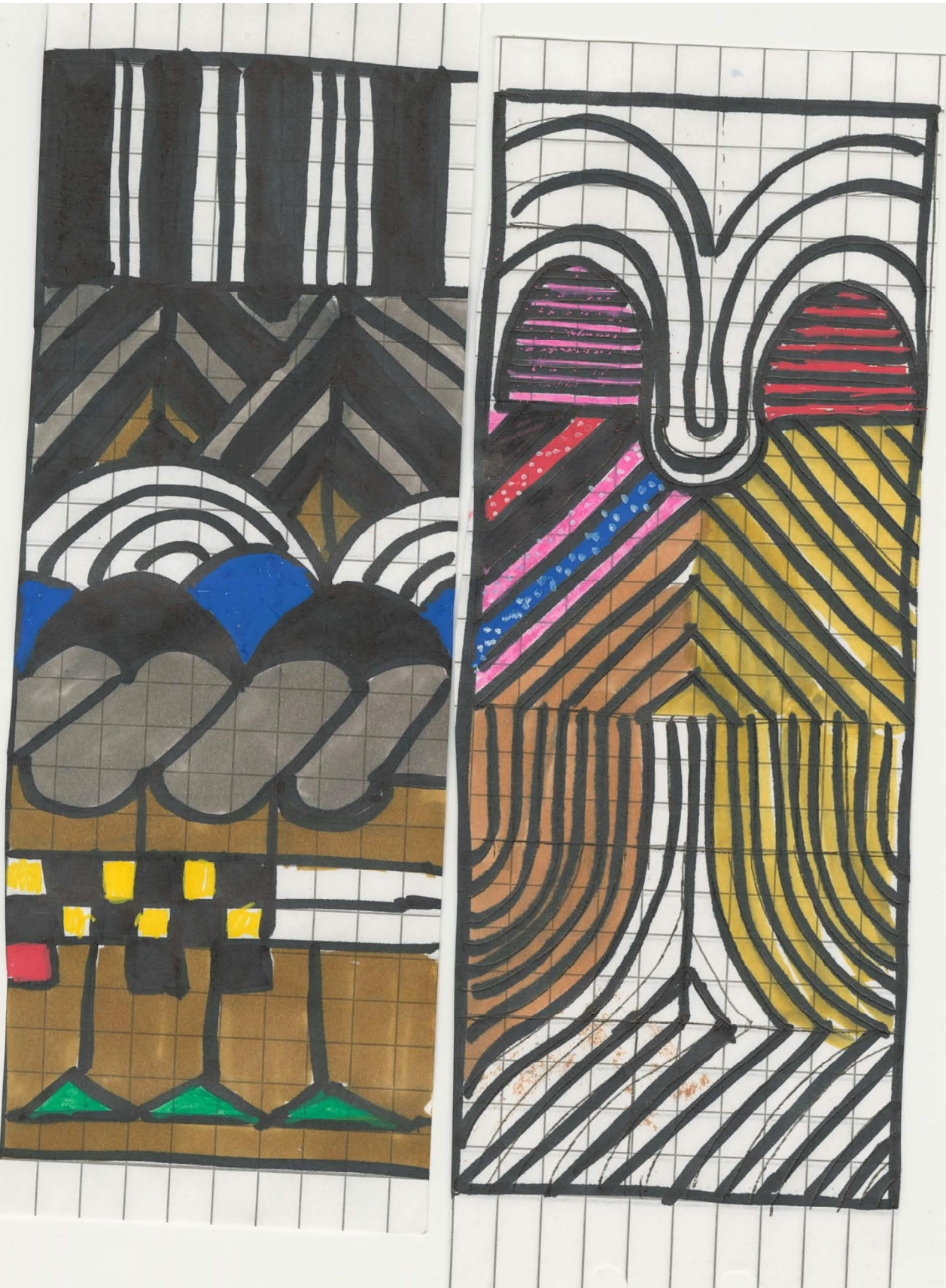


Fig.58

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Fig.59: Close-up picture of the rug (on the left)
 Fig.60: Trimming the longer piles (top)

9. *DESIGN CASE*



9.1 On sight research conclusions

This part focuses on how I designed the furniture and made some of the key elements. While the design of the furniture is quite simple most of the work is in the details.
In Yazd, the photographs I took for research included many wooden structures at the site of my research.

All of the examples depending on their dimension of over all structure indicated that there is a primary and a secondary solution for stability and durability. In some cases there was a combination of simple wooden joinery and a secondary component. The secondary reinforcements were commonly made of metal or wood. The metal component was used as patching, or in some cases joinery was later nailed in.

My sketches began with addressing only one detail of the overall structure, Which was finding the most practical process to produce and assemble the furniture. During this phase of the process I abandoned many ideas since they did not include the simplicity of the solutions i had found in my research.



Fig.64: Joinery research, Silk road restaurant, Yazd



Fig.65: Joinery research, Silk road restaurant, Yazd



Fig.62: Joinery research done in Yazd



Fig.63: Joinery research, Sigari house Takht, Yazd



Fig.66: Joinery research, Yazd

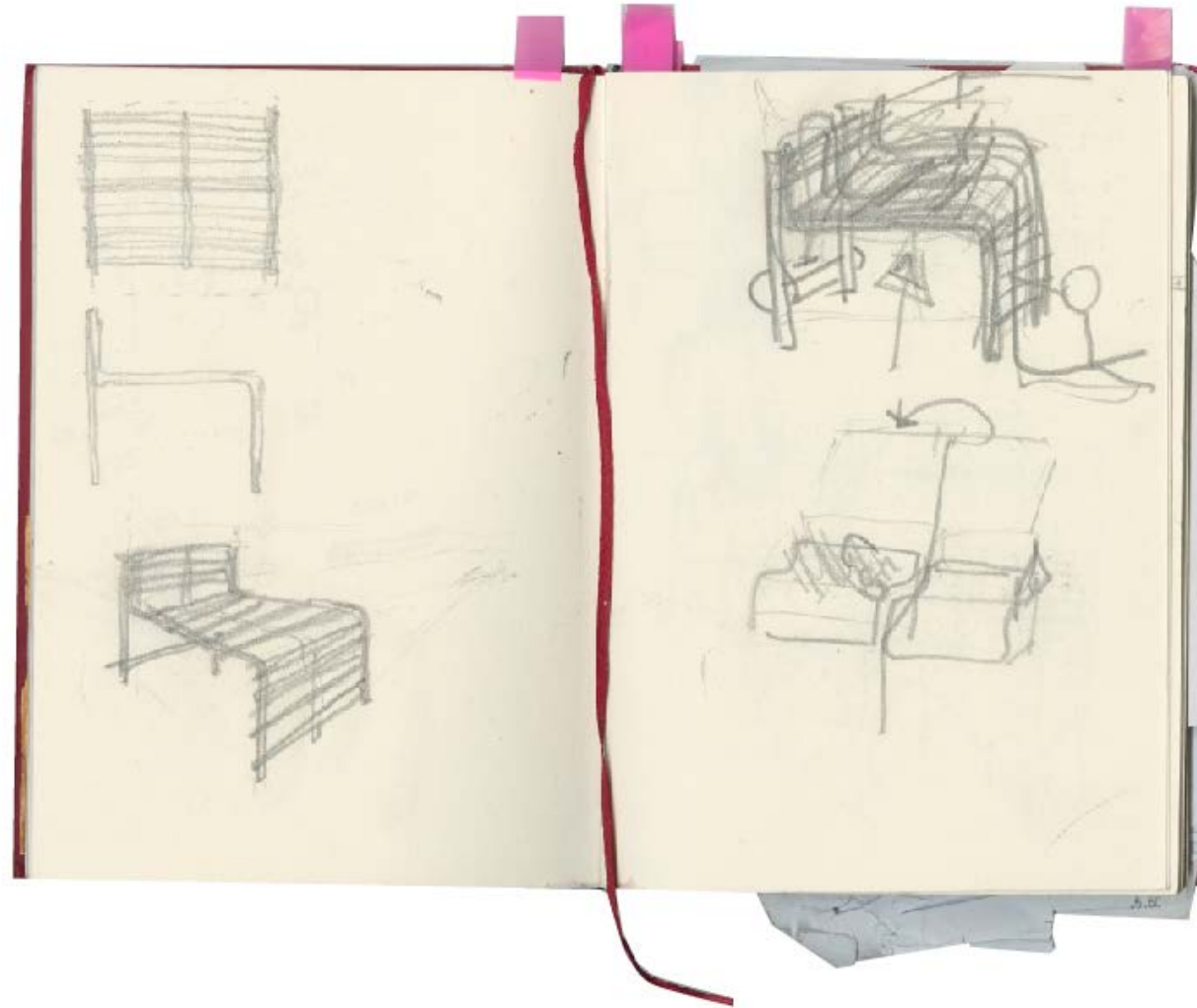


Fig.67: Abandoned ideas

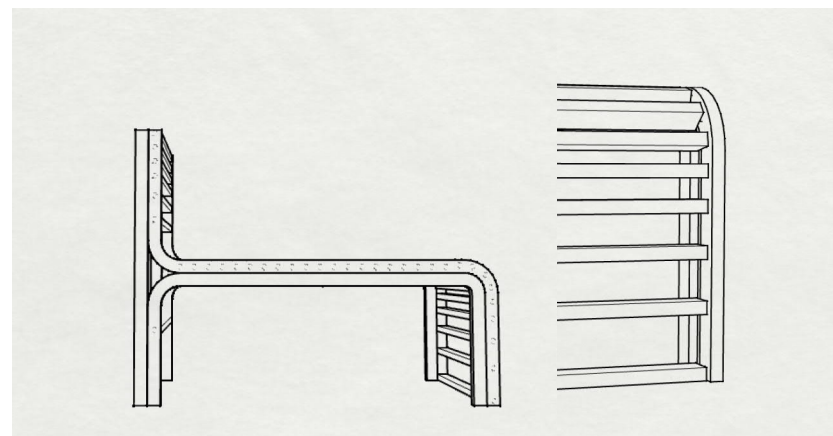


Fig.68: Abandoned ideas

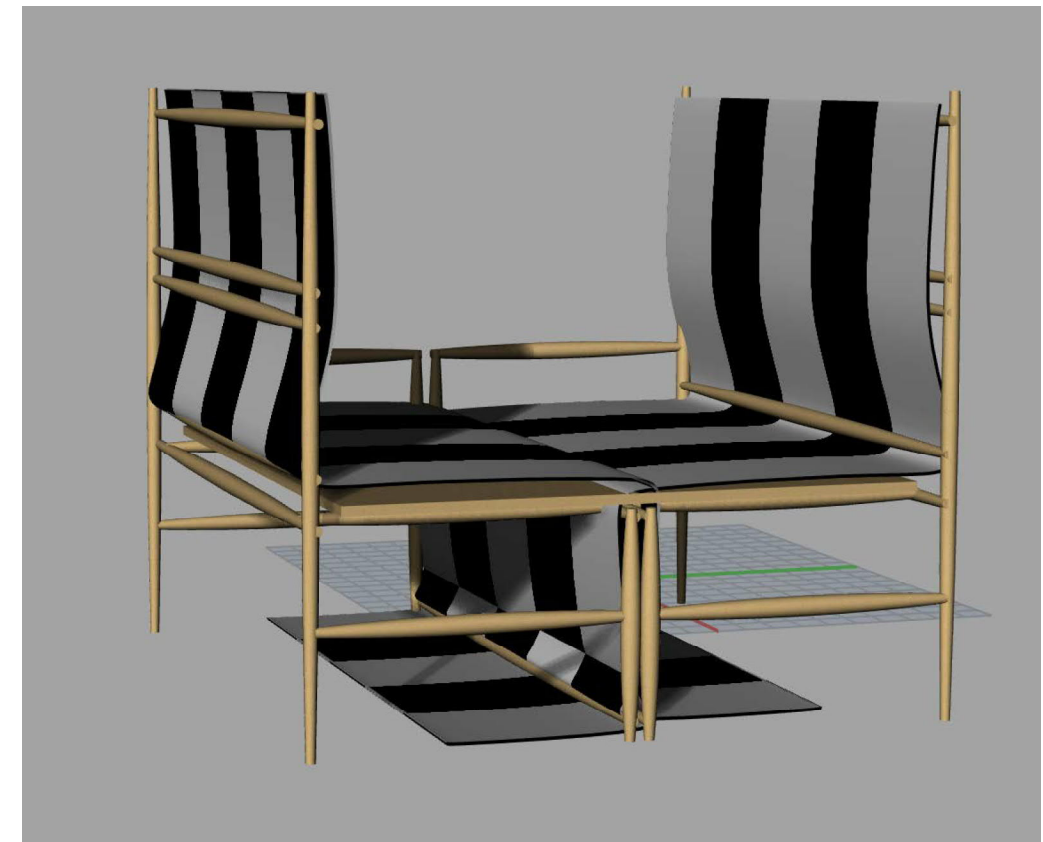


Fig.69: Abandoned ideas, visualizing idea of modularity, privacy



Fig.70: Abandoned ideas

9.2 Proportions

This piece of furniture embodies spatial subdividing and the geometric repetition of a garden, including the way space and surfaces are organized and repeated.

My goal was to maximize the space of the seating area, while making sure that the furniture still remained consistent within a contemporary residential setting. I chose to keep the structure as simple as possible. I ended up with a square meter for the seating area to keep it functional and flexible as a surface.

One square meter of space is enough for one or two people to sit comfortably. A seat with this dimension can function as a unit while still fitting in a smaller space. Wider platform multiples of the structure can be used next to each other to create the desired surface area.

The frame of the furniture requires more than simple joinery to keep the integrity. The specific dimensional properties of the furniture require strong structural solutions for supporting the weight. I decided to keep the structure as simple as possible with a square meter seating area for a functional flexible surface.

My final design started with the frame. The dimensions and the form of the frame were a crucial starting point for the other decisions that followed.

The first in-scale prototype I made was with pieces of 40mmx40mm. For a platform with such depth this kind of dimensionality would give me a solid base to work with. Anything under 40mm did not have the visual solidity that the frame dimensions required.

9.3 Joinery:

“In furniture design, the basic problem from a historical and practical point of view is the connecting element between the vertical and horizontal pieces. I believe this is absolutely decisive in giving style its character. And when joining with the horizontal level, the chair leg is the little sister of the architectonic column.” by Alvar Aalto (Pallasmaa et al., 1984, P. 9)

The joinery between the vertical and horizontal length of wood was a challenge even though many solutions would do the job. The joinery became the link not only for different plains of wood but also between the structure and the textile. It was important to me that the body of furniture and the rug form a relationship with each other. Because a great deal of the surface of the furniture is covered by the rug the visible portion of the joinery holds the most visual aesthetic significance.

One of the interesting types of joinery I found on the takht in Yazd was a hidden joint. Here is a drawing of what I imagined it to be.

Something is fascinating about the three pieces connecting and supporting each other. This type of beautiful joinery is rare and one of a kind.

By adjusting the proportions of the joinery to the dimensions of the prototyped frame the result became the link that I was seeking. The visible joinery layout mirrored the primitive animal motifs of Persian rugs. The final design became an important detail structurally as well as aesthetically. The meeting of the three pieces created a larger gluing surface and in turn stronger joinery.

To create the joinery, a jig was required to safely and precisely cut the three pieces. A jig is a tool that is made to assist safe production and easy repetition. Each cut required a custom-made jig.

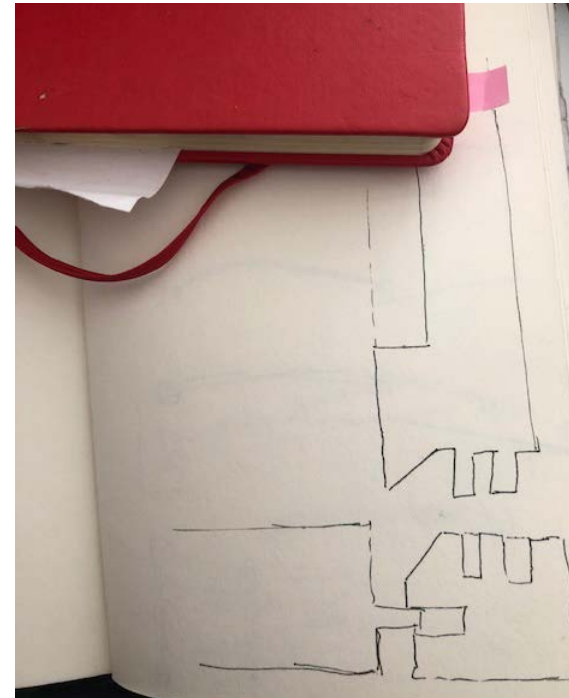


Fig.71: The hidden joint used at the Lari house takht

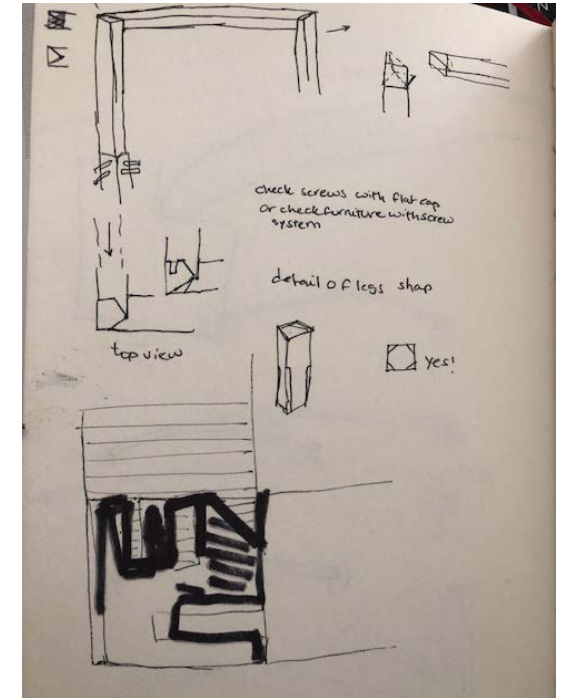


Fig.72: Redesigning the joinery

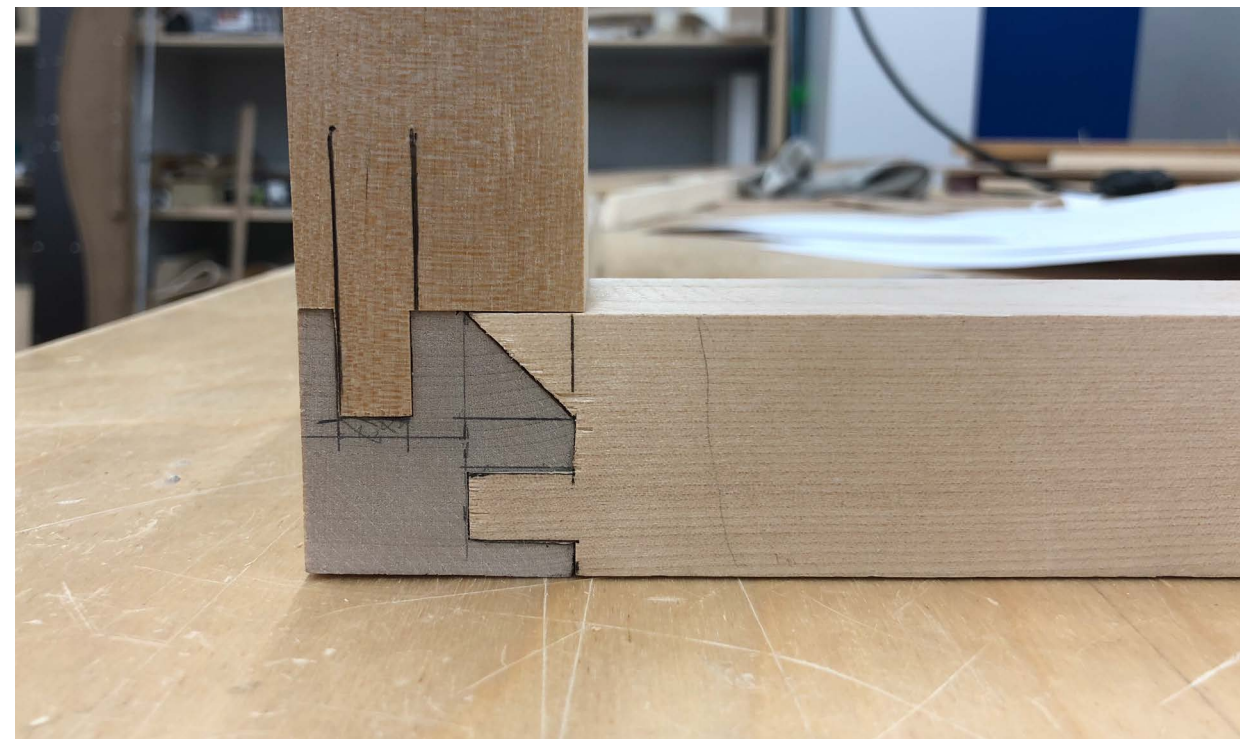


Fig.73: First test

9.4 Bentwood elements



Fig.74: Paimio Armchair (details), designed by Alvar Aalto, manufactured by Huonekalu-ja Rakennustyötehdas Oy, 1930,

Wood is the most important raw material in Finland and has led into many experiments. Alvar Aalto has been a leading designer in exploring the function of form. Aalto's vision came from the mission of making a reform within the interior that was concerned with economics, technicality, feasibility, and satisfaction. "As you know, you need a nail to make a soup. And to make furniture you need a basic element, a structural standard part, which modified in some way, appears in all pieces. Sine qua non: apart from its structural characteristics, the basic element must have a purposeful and style creating form."

Alvar Aalto

(Pallasmaa et al.,1984, P. 9)

My inspiration for the bentwood elements come from the Finnish Architect Alvar Aalto. The bentwood component is an elegant solution for creating a strong transition between horizontal and vertical structures. The curved wooden legs for furniture eliminated the production hassle of many precise joineries. The wood flows from a vertical axis plane to a horizontal plane. Alvar Alto made a note about this transition: "In furniture design, the basic problem from historical-and practical- point of view is the connecting element between the vertical and horizontal pieces. I believe this is absolutely decisive in giving style its character. And when joining with the horizontal level, the chair leg is the little sister of the architectonic column."

(Pallasmaa et al.,1984, P. 9)

Alvar Aalto has made many experiments exploring the function of form. His architecture background assisted his quest to give the method of molding plywood a new function, using it to form a weight-bearing frame. His successful method led to the production of what he called "bent knee". (Pallasmaa et al.,1984, P. 75)

His technique for producing this structural component was by cutting open a piece of solid birch wood alongside the direction of the wood fibers. His next step was gluing thin pieces of the same kind of wood between the grooves. After this step the wood was bent in the desired angle. (Pallasmaa et al.,1984, P. 77)

The bent-wood elements function as a secondary support component to the furniture frame.

Similar to the patchwork design from the joinery I found at my research site these pieces create a triangular structure providing stability and support of the lengthy pieces.

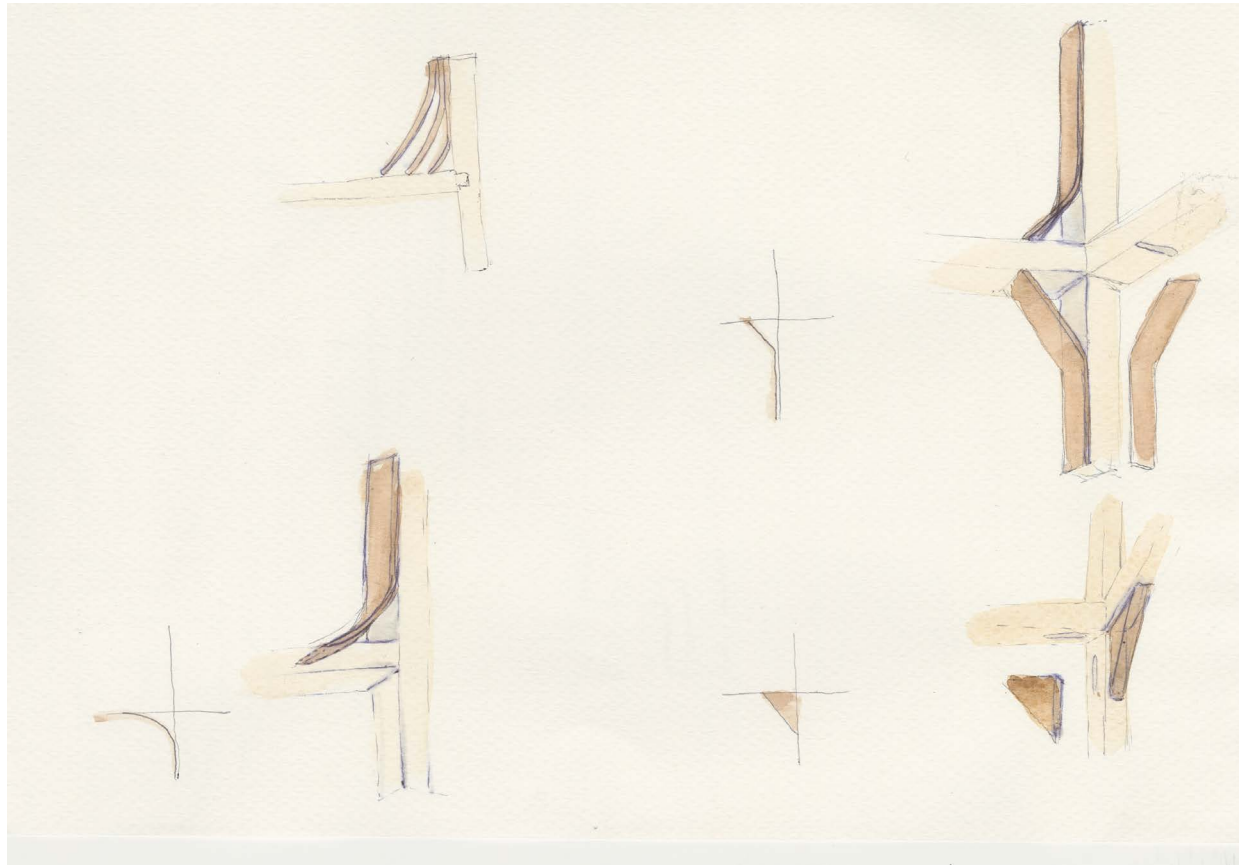


Fig.75: Secondary support ideation sketches

Bending plywood is a sensitive process that involves many trials and errors. Depending on how experienced the maker is there are a variety of methods to get a desired result.

This process typically requires a positive and a negative mold. The thickness of the plywood affects the type of mold that is used.

Heat and steam are the two factors that enable the bending process of wood. A mold and clamps are the basic tools needed to start the process. My first attempt to bend the wood was done using a foam mold and a metal strap (to keep the pieces in place and distribute the pressure).

For my initial tests I used a vacuum bag and a wood oven. The vacuum bag acts similarly to clamps. It wraps around the mold and keeps the plywoods in place while pressure is applied. The oven requires using a special power glue that is mixed with water. The glue becomes effective when it is exposed to heat and pressure. Once the rubber bag is placed in the oven, the glue requires about 45 minutes to set.

The birch plywood strips were intended to measure half a millimeter in thickness. For this method, two foam molds were made. The molds were designed to shape the wood in a way that two ends of the piece would be in contact and flush with the corners of the frame.

The initial test came out successfully because the wood pieces kept their shape over time (they did not change their angles).

The biggest challenge using the vacuum bag, in this case, was that it required multiple people during the vacuuming process. The air suction causes the rubber bag to wrap between the plywood and the mold. The benefit of this method is that it is fast and creates stable pieces.

Cutting the birch into thin ply was challenging and wasteful. It added a long time to the testing process so for the production of this many supporting elements this method was not practical.

“As curve of the Aalto leg does not stay absolutely in place, the bent has to be less than a right angle. The angle corrects its self upon drying. (Pallasmaa et al.,1984, P.94)

I decided to make the bentwood support system differently.

My second attempt was to use clamps instead of the rubber bag method. The main tools required for this experiment were a sturdy mold and a few clamps. The overall process is longer because of the polyethylene glue and air drying. The main tools required for this experiment were a sturdy mold and a few clamps. The overall process is longer because of the polyethylene glue and air drying. The thickness of the plywood was also adjusted to 1 mm.

The shape of the mold remained the same as with plywood. The mold supports 100 millimeters' width of material so each round of clamping resulted in two pieces.

In this attempt I got rid of the bag but still used the heated oven and heat reactive glue to bend the wood.

The production duration was fast and the pieces came out satisfactory. After some time passed they shifted about 10 degrees, so the angle of the piece was 80 rather than 90. I was surprised because the wood bent in the opposite direction of what I had expected.

The last round of experiments were conducted similarly to the last but with a few changes to the Polyethylene glue and air drying. After conducting these tests I chose to keep the clamp in place to avoid any risk. The experimentation and hands-on work process is the most important part of my design work. Getting to know the material and their nature is important in creating successful long-lasting work. There are wonderful moments when something goes wrong and from that, a new idea is born.



Fig.76: Bending plywood process

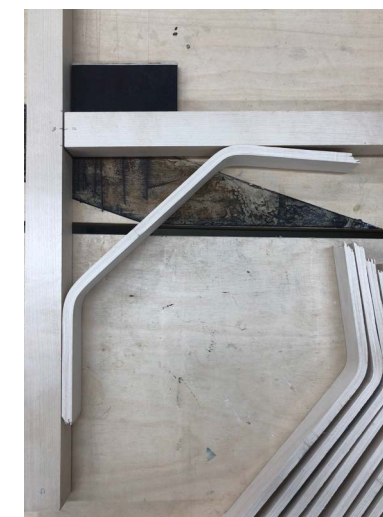


Fig.77: Wood moving over time



Fig.78: Thickness detail

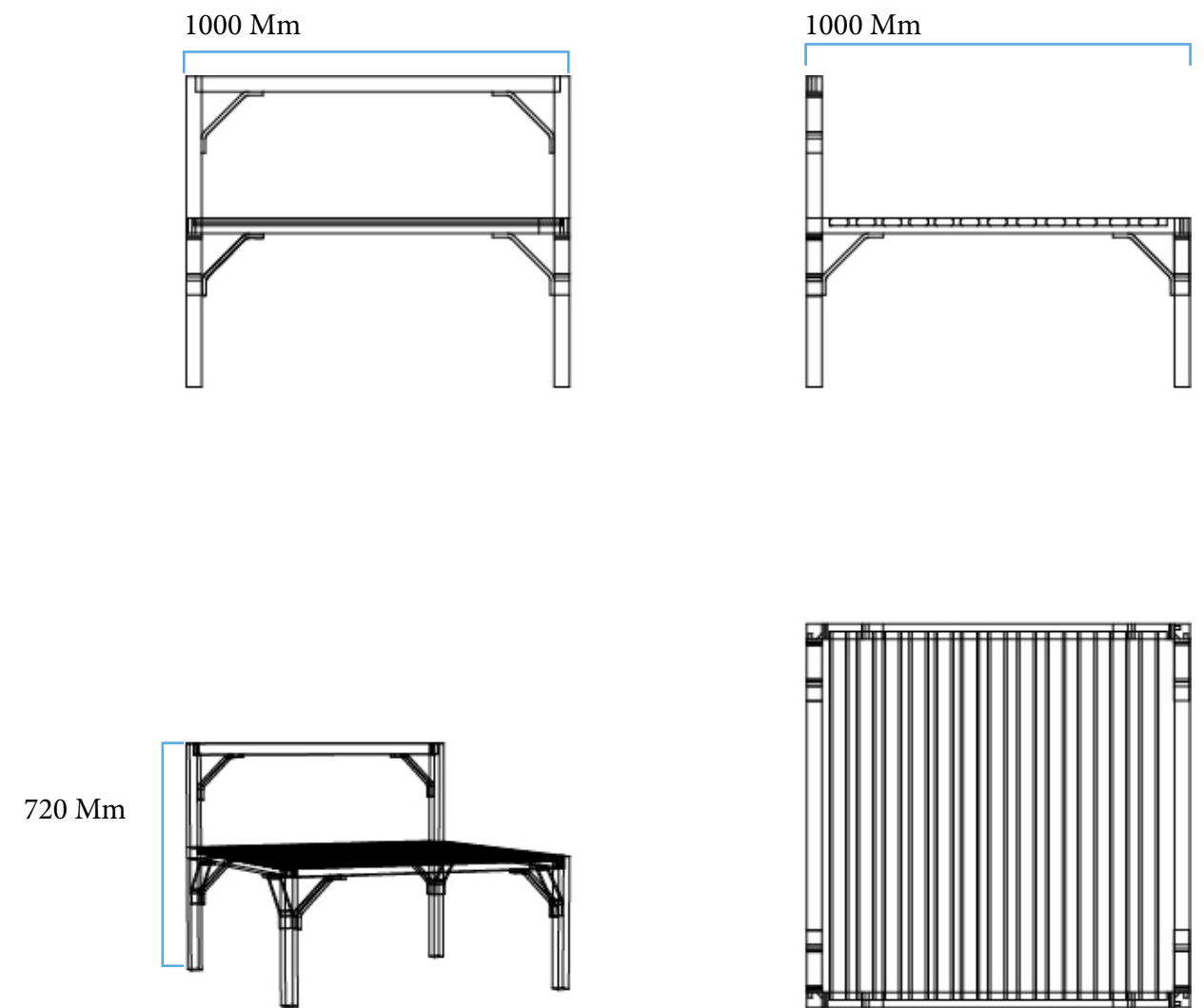


Fig.79: Tests with different shapes

Fig.80: Final technical drawing of furniture

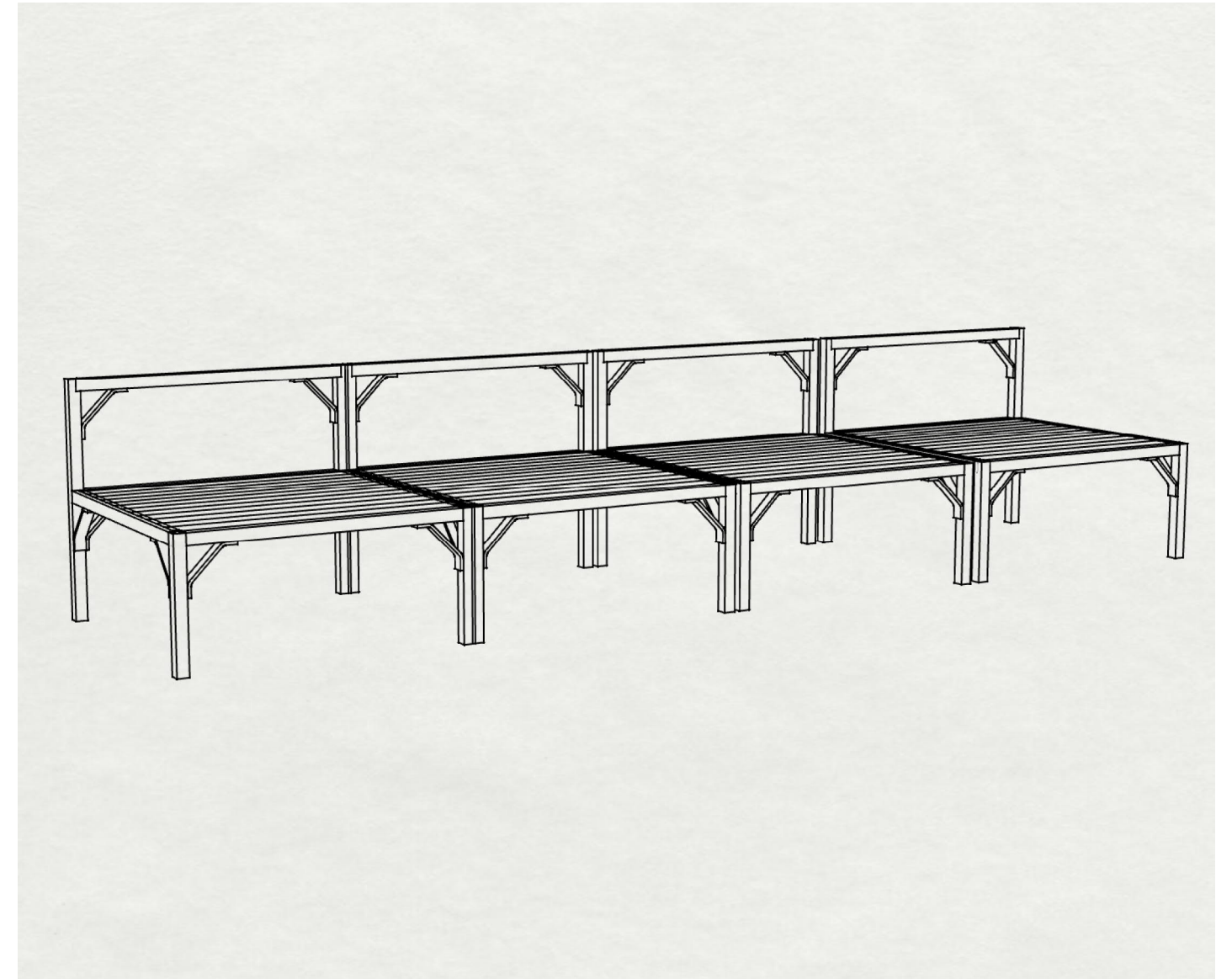
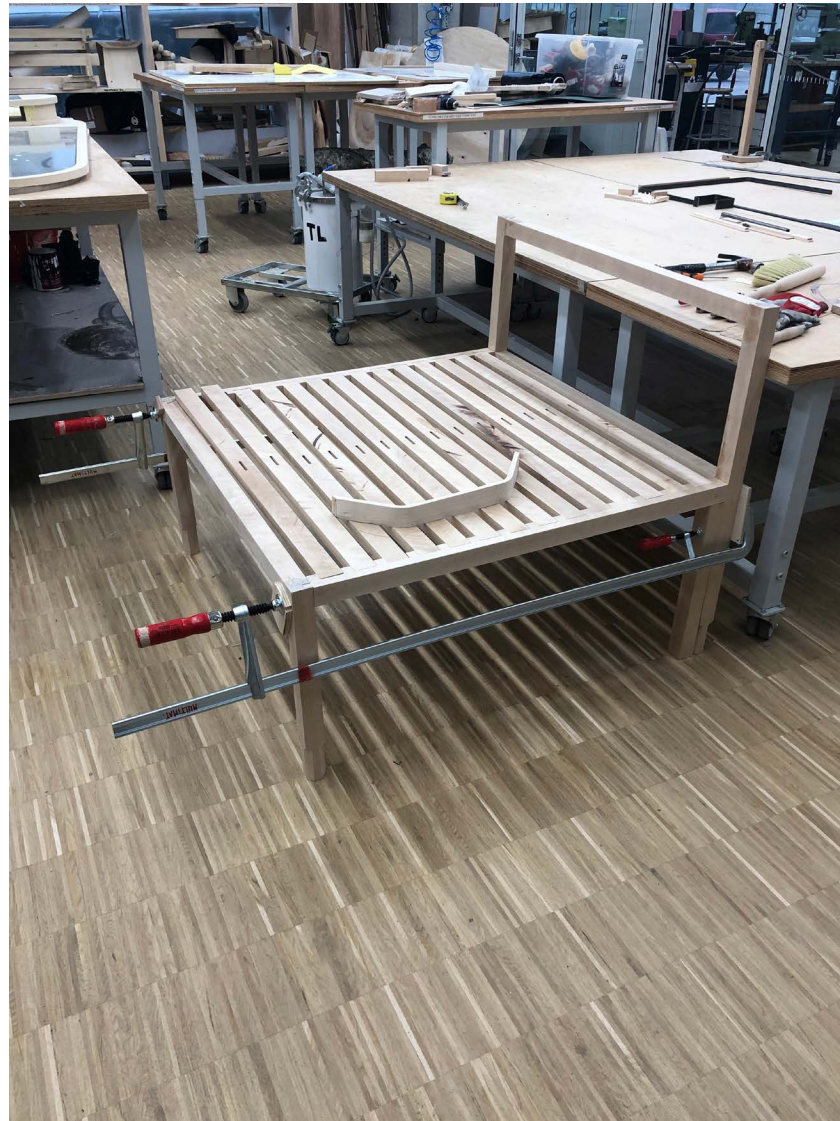


Fig.81: Process pictures

Fig.82: Modularity possibility

10. CONCLUSION



This thesis explores the rug-furniture combination in instances where it's main function has been a space well-being. It reviews the rug's soft and warm borders as a space for elevation of mood.

Ode to Heterotopia is crafted based on the parallel narratives between the two cultures. The body of the furniture is put together by combining the design approach in creation of Persian gardens with the Finnish bent plywood system used within the interior architecture. The design of the rug is also a fusion of the Finnish ryijy and Iranian gabbeh. The goal of this thesis project is to explore the experiential qualities of furniture/rug duo as a space, potentially, for new narratives within the interior context.

Ode to heterotopia provided me with the opportunity to look at my own culture with a semi outside perspective and to learn more about Finnish culture. This execution of this project has been a significant experience and reflection on my working method and identity as a designer. Within the parameters of this thesis i looked at sources of inspiration from related fields and of different scales. It inspired me to work based on where there are similarities between cultures, finding a common ground to communicate through design, it provided me with a perspective where I found myself lost during the process. This mentality became the fuel behind this project. I learned to use disciplines that seem unrelated on the surface to have a deeper understanding of my subject study. I understood where my strengths are as a designer and also weaknesses, and provided me with the time to realize where my priorities are working within this field.

The world of textiles has filled a gap where I needed to bridge my own universe to the field of design and art, It created endless possibilities for me to continue to envision solutions and as a medium of expressing my artistic vision. This thesis project has provided me with a chance to develop a working method and system to continue on with future projects.

I have made a place for comfort and day-dreaming since i felt the lack of it in my tiny apartment. Day dreaming happens when all the anxiety and pressure of daily life is lifted and i believe environments and objects can help us get there. I would like to end my thesis with a poem by Micheal Collier, which i only can imagine he wrote this is a garden:

I worry for the broccoli's sake
 That it works too hard in this bad weather,
 It is too anxious to please me, or that it has seen
 The eggplant and cucumber expand easily
 In lascivious shade and has watched, as i have,
 How those vegetables love only themselves,
 Hoarding their seed until it would fall free
 Of their dark skin.

I want broccoli to learn the ethic of busy-work,
 The ramshackle shantytown of green beans,
 Where piece-work is sweet and profitable,
 And the tiny delicate, blue and white flowers,
 With lavender pistils, are like soft faces
 Of infants about to be baptized.

Such is my vanity when i look at the garden
 That i think i can influence the destiny of plants,
 Could instruct them, or to tell them, with my tending,
 About justice that lies everywhere in the world,
 As in the spade i will use this evening
 To turn the row of peas whose leaves burn
 With fireblight, brought on by frequent rain
 And evening mist, and the disfigurement
 We recognize as judgment in everything.

Consider the Garden by Michael Collier



Fig.84: Process pictures, tufting

























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All the images used in the thesis is taken by Sara Akhlaghmoayed unless mentioned otherwise

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